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CONTENTS

Volumes XIII and XIV

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# CONTENTS.

## VOL. XIII.

ACCIDENT:	PAGE.
Owings Building, Facts Regarding the.....	37
ARCHITECT (SUPERVISING):	
Appointment of.....	49
Regarding a New.....	37
ARCHITECTS:	
Demand for in South American Cities.....	50
Texas, Bill for Licensing in.....	1, 64, 78
ARCHITECTS' FEES:	
Suit for.....	93
ARCHITECTURE:	
Australian vs. United States.....	94
Railway, Recent.....	98
Relation to Landscape, in its.....	68, 86
Romanesque.....	39, 51, 65, 83, 95
ARCHITECTURAL:	
Study, a Journal Devoted to.....	2
ARCHITECTURAL ASSOCIATIONS (FOREIGN):	
Edinburgh.....	72, 89, 103
ARCHITECTURAL ASSOCIATIONS (LOCAL):	
Buffalo Society of.....	73
St. Louis, Club.....	72
ARCHITECTURAL ASSOCIATIONS (NATIONAL):	
Applications for Membership in A. I. A. and	
W. A. A.....	93
Western.....	73
ARCHITECTURAL ASSOCIATIONS (STATE):	
Cincinnati.....	72
Illinois.....	42, 58, 78
New York.....	43
Texas.....	45
ARCHITECTURAL SCHOOL:	
Started in Chicago, An.....	38
ART:	
Criticism.....	54
ART CONVENTION:	
Benefit to Chicago.....	64
ART SOCIETIES:	
Convention of Representative, Proposed.....	63
ASSOCIATIONS (ENGINEERS):	
Denver Society of Civil.....	103
ASSOCIATIONS (PAINTERS):	
National.....	11
Illinois.....	94
ASSOCIATIONS (SKETCH CLUBS):	
Chicago.....	12, 46, 59, 89, 103
Columbus.....	103
Detroit.....	89, 103
New York Architectural League.....	73
New York.....	73
St. Louis.....	72
Syracuse.....	103
BUILDER:	
Relation of Architect to the.....	16

BUILDERS:	PAGE.
Convention of National Association of, Third	
Annual.....	37
Delegates to National Convention of 1889.....	15
English Comment Upon the, An.....	94
National Association.....	89
Officers of National Association of 1889.....	15
Social Club.....	63
BUILDERS' EXCHANGES:	
Advantages and Opportunities, Their.....	18
Chicago.....	11, 72
Formation of New.....	63
Washington.....	103
BUILDING:	
Outlook.....	12, 48, 60, 73, 104
BUILDING NEWS:	
Synopsis of.....	13, xvi, 60, 73, 91, 105
BUILDINGS:	
Ordinance to Limit Height of.....	81
CARVING:	
Wood.....	100
CATHEDRAL:	
Seville.....	80
CLUBS:	
Builders, a Social for New York.....	63
Consolidation of Architectural.....	101
History and Development of Chicago.....	57
Lantern Slide, Chicago, the.....	60
Sketch.....	55
COMPETITION:	
City Hall, Another Disreputable.....	64
Notable Change in St. Louis.....	77, 81
Clark Medal, The.....	103
Phimister Medal, The.....	102
Toronto Board of Trade, The.....	50
COMPETITIONS:	
Clark and Phimister Medal, The.....	94
European.....	26
CONSOLIDATION:	
Effected, Reasons Why, Should be.....	50
Report of Committee on.....	1
Vote of A. I. A. and W. A. A. Upon.....	77
Vote For and Against, Regarding the.....	50
CONSTITUTION AND BY-LAWS:	
Proposed, Consolidated Architectural Asso-	
ciations, of the.....	10
CONSTRUCTION:	
FIREPROOF, False Reports Regarding.....	38
DESIGNS:	
Published, Why Architects Should have.....	64
EXHIBIT:	
Glass and Pottery.....	83
EXPOSITION:	
Paris, Opening of.....	63

HARDWARE:	PAGE.
Modern.....	47, 59
HINTS:	
Practical, Some.....	7
HOSPITAL:	
Addition, A Model.....	58
ILLUSTRATIONS:	
Our.....	9, 48, 59, 73, 90, 104
INTERIOR WORK:	
Bedroom, A.....	41
Clock Cases.....	5
LEGAL DECISIONS:	
Important.....	58, 99
LIEN LAW:	
Illinois, The.....	1
MANUFACTURING:	
Plant, A Mammoth.....	71
METRIC SYSTEM:	
The.....	23
PAINTER:	
Verestchagin, The.....	3
PAINTINGS:	
Verestchagin, Collection of.....	2
PRESS:	
Unjust Criticism by the.....	38
PRESSED BRICK:	
Warehouse for, A.....	58
PROCEEDINGS (BUILDERS):	
National Association of.....	27
PUBLICATIONS:	
Beacon, The.....	48
Compressive Resistance of Freestone, Brick	
Piers, Hydraulic Cements, Mortars and	
Concretes.....	103
Notes on the Art of House Planning.....	48
Roofs, Theory of Continuous.....	89
RAILROAD:	
Punishing a, for Reducing Freight Rates....	71
ROAD PROJECT:	
Sheridan, The.....	88
SANITARY:	
Improvements in Naples.....	93
SKETCHES (BOSTON):	
General.....	53
Private Work.....	6
Suburban Work.....	40
SKETCHES (NEW YORK):	
Old Work.....	96
TIN PLATE:	
Manufacture of, In United States.....	78
WORK:	
Estimating, Rules for.....	31
Masonry.....	21
Plastering and Stucco.....	17

## VOL. XIV.

ANCHORING:	
Methods of.....	8
ARCHITECTS:	
Commission on Materials to.....	88
International Congress of, at Paris.....	2
Relation to Fair of 1892.....	16, 17
ARCHITECTURE:	
Instruction in.....	23
In the West.....	78
Romanesque.....	3, 18, 48, 73, 90
ARCHITECTURAL:	
Course in Art Institute, Chicago.....	15
Federation.....	31
Students.....	22
ARCHITECTURAL OFFICES:	
Wilson Brothers, of.....	41
ARCHITECTURAL POETRY:	
Sometimes "I," Sometimes "Jay".....	101
ARCHITECTURAL ASSOCIATIONS (FOREIGN):	
Edinburgh.....	102
ARCHITECTURAL ASSOCIATIONS (LOCAL):	
Washington Chapter.....	102
ARCHITECTURAL ASSOCIATIONS (STATE):	
Illinois.....	54, 84, 96
Illinois Consolidation of and Chicago	
Chapter.....	99

Missouri.....	88
New York.....	42, 51
Ohio, Fourth Annual Convention.....	1
Ohio.....	30
Two Important.....	33
Ontario.....	96
Reorganization and Work of.....	88, 89, 99
ASSOCIATION:	
Continental Character of the New.....	46
ASSOCIATION (INSTITUTE OF TECHNOLOGY):	
Northwestern.....	84
ASSOCIATIONS (BUILDERS):	
Chicago Exchange.....	83, 100
ASSOCIATIONS (CARPENTERS):	
Chicago.....	96
Memphis.....	42
ASSOCIATIONS (ENGINEERS):	
Arkansas Society.....	84
Denver Society of Civil.....	10, 24, 83
ASSOCIATIONS (NATIONAL):	
Builders.....	89, 95
Executive Committee, A. I. A.....	101
Western.....	24
ASSOCIATIONS (SKETCH CLUBS):	
Buffalo.....	84
Chicago Architectural.....	24, 42, 54, 80, 83

Cincinnati.....	82, 96
Denver.....	102
Detroit.....	84, 96
Kearney, Nebraska, The.....	10
Montclair, N. J.....	24
New York Architectural League.....	42, 96
Newark.....	96
ART:	
Chicago Exposition, at.....	15
Exhibit at Chicago Exposition.....	36
AUDITORIUM:	
Completion of Chicago.....	87
BUILD:	
How shall we?.....	39
BUILDING:	
Outlook.....	11, 26, 43, 85
BUILDING NEWS:	
Synopsis of.....	12, 26, 43, 55, 85, 97
BUILDING MATERIAL:	
Upward tendency in market.....	35
BUILDINGS:	
World's Fair, for.....	16
BUDDENSIEK:	
Skin builder, pardon of.....	29
COMMITTEE:	
Standing.....	72



COMPETITION :	PAGE.	ELECTRIC WIRES :	PAGE.	PROFESSIONAL :	PAGE.
Clark Medal, The.....	53	Danger of Underground.....	72	Conquest .....	58
Clark Medal, unsatisfactory result of the....	46	General Destructibility of Insulation Mate- rials.....	72	PUBLICATIONS :	
Emblem for a national.....	34	FINE ARTS :		Academy Architecture and Annual Architect- ural Review .....	85
Expert in St. Louis City Hall.....	34	American Society .....	101	Architectural Studies .....	24
Grant monument, delays in.....	35	FIRE INSURANCE :		Blacksmithing, Practical .....	24
Grant monument, unwarranted publication of designs of .....	35	Uniform Contract, Under the.....	89	Building, Hints on.....	25
St. Louis City Hall.....	17	FIREPLACE :		California Architect and Building News.....	85
Toronto, A.....	83	Modern, The.....	42	Carpenters' and Builders' Assistant and Wood- workers' Guide.....	85
COMPETITIONS :		HEALTH COMMISSIONER :		Hand-railing, Nonpareil System of.....	11
Canadian Architects and.....	88	Chicago, Regulations of.....	2	House Planning, Notes and Art of.....	11
CONSOLIDATED :		ILLUSTRATIONS :		Log Cabins.....	25
Association, Officers of the.....	72	Our.....	10, 24, 40, 55, 84, 97	Treatise on Masonry Construction .....	85
CONSOLIDATION :		IMAGINATION :		SHIPBUILDING :	
Accomplished .....	71	Artistic Use of .....	38	Disappearance of Art of.....	2
Joint Convention, Where Held.....	1, 7, 15	JOURNAL :		SKETCHING :	
Meetings of the Executive Boards.....	29	Official, for N. A. B., An .....	35	Continent, on the.....	39
Preparations for Joint .....	33, 42	LEGAL STATUS :		STEAM PLANT :	
CONSTRUCTION :		Immediate Necessity of Obtaining a.....	71	Electric Light, for Isolated .....	50
Safe Method of .....	8	LICENSE BILL :		STYLE :	
Steel, Economy in Use of, in.....	94	New York State Architects.....	46	Development of Architectural .....	76, 92
CONVENTION :		MEMBERS :		Francis I, of.....	20
Consolidation of A. I. A. and W. A. A.....	60	Necessity for Individual Activity .....	71	National, The.....	6
Contemporaries Remarks Upon, A.....	46	OBITUARY :		TOWERS :	
General Directions Regarding .....	45	Durand, George F.....	87	Domes and .....	57
Importance of Attending.....	45	Shaw, Henry, of St. Louis .....	17	High, for Fair of 1892 .....	16
Official Programme of the Joint.....	54	PLANS AND SPECIFICATIONS :		TRAPS :	
DRAWINGS :		Government.....	95	Evaporation of Water in.....	60, 94
National Exhibition of Architectural .....	15, 24, 29, 42, 47	PLUMBING :		WORLD'S FAIR :	
DESIGN :		Regulations, Revised, for Chicago.....	34, 40	Architectural Profession and the.....	47
Price Prizes for Decorative .....	55	Some Details Regarding .....	34	Buildings, Design and Construction of.....	47
EFFLORESCENCE :				Location of.....	17
Prevention of.....	83				

ILLUSTRATIONS.  
VOL. XIII.

ILLUSTRATIONS :		Architect Dilks, Albert W., for Mrs. James M. Gamble .....	May	ENTRANCES :	
ARMORY :		Architect Dilks, A. W., for Charles Dissel..	June	Convent of St. Paul, Seville.....	Feb.
Architects Burnham & Root, for First Regi- ment, Chicago .....	June	Architect Jenney, W. L. B., for Gen. Walter C. Newberry.....	March	Architect Siter, H. E., for Third National Bank, Cincinnati .....	April
BEDROOM FURNITURE :		Architect Little, Arthur, for Phillips Beach..	April	EXHIBIT ROOM :	
Designed by William Morgan Peters .....	March	Architect Maher, G. W.....	June	Architects Burnham & Root, for Yale & Towne Manufacturing Co .....	March
CLOCK CASES :		Architects Patton & Fisher, for James V. Ridgway .....	May	HOTEL :	
Designed by William Morgan Peters .....	Feb.	Architects Pond & Pond, for John W. Lang- ley .....	May	Façade at Tours, France.....	April
COMPETITIONS :		Architect Silsbee, J. L., for Judge Jamieson..	May	INTERIOR (RESIDENCE) :	
Chicago Architectural Sketch Club, for Stone Hall Mantel.....	March	Architect Thain, J. A., for S. K. Martin ..	March	Architects Burnham & Root, for J. V. Far- well.....	June
Chicago Architectural Sketch Club, for a Twenty-five-foot Front Residence in French Chateau Style.....	July	Architects Treat & Foltz, for Wm. Bunge..	April	INTERIOR (CHURCH) :	
Chicago Architectural Sketch Club, for Terra-Cotta Vase.....	June	SCHOOL :		Architect Faxon, John Lyman .....	April
Cincinnati Architectural Club, for City Front, by Louis G. Dittoe.....	April	Architect Beers, M. L.....	May	LIBRARY :	
St. Louis Architectural Club, for Entrance to City House, by J. W. Longfellow.....	May	SKETCHES :		Architects Peters & Burns, for Dayton Pub- lic School.....	April
ENTRANCE :		Foreign Architecture, by Nolan, E. B .....	June	MANUFACTURING BUILDING :	
Architects Peabody & Stearns, for Memo- rial Hall, Lawrenceville, N. J .....	April	Paris Exhibition .....	July	Architect Jenney, W. L. B., for the Her- cules Company .....	May
HIGH SCHOOL :		Boston, by Schweinfurth, J. A .....	Feb.	MARKET PLACE :	
Architect Stiles, Clarence L., for La Grange, Ill.....	Feb.	New York, by Schweinfurth, J. A .....	July	Brussels, Belgium .....	June
HOTEL :		STABLE :		MONASTERY :	
Architect Starrett, Theodore, for Paul Cornell .....	April	Architect Maher, G. W .....	July	Carthusian (two views) .....	April
HOUSES :		WAREHOUSE :		RAILWAY STATION :	
Architect Dietrich, E. G. W., for Mr. Cham- berlain.....	May	Architect Rosenheim, A. F., for Drey & Klein .....	Feb.	Architects Spier & Rohn, for Michigan Cen- tral Railway at Ann Arbor .....	July
Architects Rotch & Tilden, for Mr. Allan..	May	WHOLESALE STORE :		RESIDENCES :	
Architect Silsbee, J. L., for F. Greeley...	March	Architects Adler & Sullivan, for Martin Ryerson .....	April	Architect Beers, M. L., for M. C. Bullock ..	Feb.
OFFICE BUILDINGS :		ILLUSTRATIONS (PHOTOGRAPHURE) :		Architects Burnham & Root, for Thomas Lord.....	June
Architect Jenney, W. L. B., for C. C. Heisen..	July	APARTMENT HOUSE :		Architects Burnham & Root, for H. R. Wil- son .....	Feb.
Architects Peabody & Stearns.....	June	Architect Faxon, J. Lyman.....	July	Architects Edbrooke & Burnham, for J. B. Kirk .....	March
Architect Ramsey, Charles K.....	May	ARCADE :		Architect Loring, George F., for H. H. Hutchins.....	July
Architects Treat & Foltz.....	Feb.	Victor Emanuel .....	March	Architect Luce, Clarence S., for W. H. Wes- son .....	Feb.
PANEL :		CASINO :		Architects Pond & Pond, for Dr. V. C. Vaughan .....	July
Theodore O. Fraenkel, des. and del...	July	Monaco.....	March	Architect Slocum, S. Clifford, for H. S. Leech .....	March
RAILWAY STATIONS :		CHURCHES :		Architect Smith, O. F., for Colonel E. H. Haskell.....	March
Architect Beman, S. S., for Wisconsin Cen- tral Railway, Chicago.....	Feb.	Architect Faxon, John Lyman .....	April	Architect Schweinfurth, C. F., for W. G. Pack .....	July
Architects Cobb & Frost, for Chicago & North-Western Railway, at Milwaukee..	March	Architect Latrobe, Benjamin, Unitarian at Baltimore .....	July	Architect Schweinfurth, C. F., for Wm. Chesholm .....	July
Architects Sprague & Newell, for Union Depot, Pueblo, Colo.....	June	COURT FAÇADE :		Architects Treat & Foltz, for Thomas Chalmers .....	March
RESIDENCES :		Alcazar, Seville.....	Feb.		
Architect Beers, M. L.....	April	COURT HOUSE AND JAIL :			
Architect Dilks, Albert W., for Dr. Thomas G. Morton .....	April	Architect Richardson, H. H., for Pittsburgh (six plates) .....	May		
		Architect Richardson, H. H., for Pittsburgh (four plates) .....	June		
		DOUBLE HOUSES :			
		Architect Price, Bruce.....	Feb.		

# ILLUSTRATIONS.

## VOL. XIV.

## ILLUSTRATIONS:

## BUSINESS BUILDING:

Architects Van Brunt & Howe, for Bulline,  
Moore, Emery & Co.....Jan.

## CHURCHES:

Centennial Baptist, Chicago.....Aug.  
Architect Chandler, T. B., for Philadelphia.....Sept.  
Architects Kidder & Humphreys, for Den-  
ver.....Jan.  
Architect Schnetzsky, H. P., for Milwaukee,  
Wis.....Aug.  
Architect Smith, Alfred, for Chicago.....Dec.  
Architect Starbuck, Henry F., for Michigan  
City, Ind.....Oct.  
Architect Townsend, F. B., for Edgewater,  
Ill.....Dec.

## CITY HALL:

Architect Smith, Sidney, competitive de-  
sign.....Sept.

## COUNTRY HOUSES:

Architect Albright, Harrison.....Dec.  
Architects Fassett & Thompson, for John  
Kelley.....Nov.

## DETAIL OF CAPITAL:

Design by Ross, Albert R.....Jan.

## DOUBLE HOUSE:

Architects Maher & Corwin, for A. F. Shu-  
man.....Jan.

## HOSPITAL:

Architects Burling & Whitehouse, for Home  
for Incurables.....Sept.

## HOUSE:

Architects Knox, Elliott & Jarvis, for Theo-  
dore Heintzman.....Nov.  
Architects Wilson, Marble & Lamson, for  
C. E. Anthony.....Oct.  
Architects Burling & Whitehouse, for Dr.  
C. P. Caldwell.....Aug.

## HOUSES:

Architects Treat & Foltz, for Hubbard  
Estate.....Jan.

## INTERIOR (DINING ROOM):

Architects Pond & Pond, for James Mc-  
Mullen.....Aug.

## LIBRARY:

Architect Frost, Charles H., for Morgan  
Park.....Aug.

## OFFICE BUILDINGS:

Architects Burnham & Root, for Chicago..Nov.  
Architects Mason & Rice, for Detroit, Mich.....Oct.  
Architects Van Osdel, J. M. & Co., for C. C.  
Heisen.....Oct.

## OFFICE AND FLAT BUILDING:

Architect Carlin, W. W.....Nov.

## PANEL:

Cincinnati Architectural Club, French  
Renaissance.....Sept.

## RAILWAY STATIONS:

Architects Mason & Rice.....Dec.  
Architects Poindexter, W. M. & Co., for  
R. & D. R. R.....Jan.

## RESIDENCES:

Architect Bell, M. E., for J. P. Smith.....Nov.  
Architect Bell, M. E., for Mrs. Mary Wilke.....Sept.

Architect Block, Otto, for Rochester, N.Y....Oct.

Architect Cutler, James G., for H. W. Sib-  
ley.....Dec.

Architects Dean, D. K. & Son, for Henry  
Shenk.....Nov.

Architect Dimmock, M. J., for Mr. Thellett  
.....Intermediate Aug.

Architects Flanders & Zimmerman, for J.  
Morton.....Aug.

Architect Hellmers, Jr., C. C., for Dr. B.  
St. J. Fry.....Oct.

Architect Jenney, W. L. B., for Thomas A.  
Wright.....Sept.

Architects Mason & Rice, for Grosse Pointe,  
Mich.....Dec.

Architects Pond & Pond, for Joseph Fair-  
hall.....Oct.

Architect Ramsey, Charles K., for A. V. S.  
Lindsley.....Sept.

Architect Stuckert, A. M., for R. N. Hinds.....Dec.

Architect Swasey, Albert E., for James  
Taussig.....Aug.

Architects Treat & Foltz, for Miss M. Wil-  
son.....Jan.

## SCHOOLS:

Architect Beers, Minard L., for Memphis,  
Tenn.....Nov.  
Architects Plympton & Trowbridge, Cincin-  
nati, Ohio.....Jan.

## SKETCHES:

Mullay, Thomas H.....Sept.  
Mullay, Thomas H.....Jan.

## STORE:

Architects Burnham & Root, for T. P.  
Randall.....Aug.

## TENEMENT BLOCK:

Architects G. W. & F. D. Orff, for Henry  
W. James.....Oct.

## TOWERS:

At Mackleberg, Hanover and Brandenburg.....Aug.

## UNIVERSITY:

Architects Mason & Rice.....Dec.

## ILLUSTRATIONS (PHOTOGRAVURE):

## APARTMENT HOUSE:

Architect Schweinfurth, C. F., for Cleve-  
land, Ohio.....Oct.

## BANK:

Ashland, Wis.....Sept.

## BUSINESS BLOCKS:

Architects Baldwin & Pennington.....Oct.  
Architects Cudell & Richardson, for Hon.  
H. B. Payne.....Nov.

## CANAL:

Venice.....Aug.

## CATHEDRAL:

Architect Latrobe, Benjamin.....Sept.

## CHURCHES:

Architects Wilson, J. A. & W. T.....Sept.  
Architect Wood, Halsey, for Kansas City,  
Missouri.....Dec.

## CHOIR SCREEN:

Cathedral, Seville, in.....Aug.

## COMMERCIAL BUILDING:

Architect Jenney, W. L. B., for L. Z. Leiter.....Aug.

## DOULE RESIDENCE:

Architect Schweinfurth, C. F., for Dr. Z. T.  
Dellenbaugh.....Jan.

## ENTRANCE:

Architects McKim, Mead & White, for Kan-  
sas City, Mo.....Jan.

## EXPOSITION:

Paris, General View.....Nov.  
Paris, General View.....Nov.

## HALLS:

Architects Cudell & Richardson, Germa-  
nia.....Sept.  
Architect Schweinfurth, C. F., for A. T.  
Hubbard.....Dec.

## GYMNASIUM:

Architect Arey, C. O., for Cleveland, Ohio.....Oct.

## HOUSES:

Architects Brown & Day, for Alan H.  
Reed.....Aug.

## LIBRARIES:

Architects Burnham & Root, for J. V. Far-  
well.....Aug.  
Architect Warren, Foster J.....Aug.

## MASONIC TEMPLE:

Architect Windrim, James H., for Philadel-  
phia.....Sept.

## OFFICE BUILDINGS:

Architects Bradley, Winslow & Wetherell,  
for Kansas City, Mo.....Dec.

Architects McKim, Mead & White, for Kan-  
sas City, Mo.....Dec.

Architects Wilson Bros. & Co., for Philadel-  
phia.....Oct.

Architect Windrim, James H., Philadelphia,  
Pa.....Oct.

## RESIDENCES:

Architect Arey, C. O., for Miss J. F. Doty.....Nov.

Architects Burling & Whitehouse, for Hugh  
J. McBirney.....Jan.

Architects Burnham & Root, for H. K. Need-  
ham.....Jan.

Architect Cady, J. K., for Frank M. Elliott.....Dec.

Architects Cobb & Frost, for Dr. E. M. Hale.....Jan.

Architect Crapsey, Charles, for Albert G.  
Clark.....Nov.

Architect Orth, George S., for George W.  
Reed.....Dec.

Architect Richardson, H. H.....Aug.

Architect Richardson, H. H., for William  
H. Gratwick.....Dec.

Architect Schweinfurth, C. F., for M. A.  
Hanna.....Sept.

Architect Schweinfurth, C. F., for H. B.  
Nye.....Jan.

Architect Scofield, Levi T., for G. W.  
Stockly.....Oct.

Architect Smith, George H., for C. F.  
Brush.....Jan.

Architect Stuckert, A. M., for Denver, Colo.....Oct.

## STATUARY:

Architect Scofield, Levi T., for Cleveland  
Soldiers' Monument.....Nov.



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GEORGE C. PRUSSING, Chicago, Ill.	WILLIAM H. GANALIRE, Rochester, N.Y.
J. M. BLAIR, Cincinnati, Ohio.	FRANK CLARK, Sioux City, Iowa.
R. H. JENKS, Cleveland, Ohio.	JOHN DeCLUE, St. Joseph, Mo.
W. J. STAPLETON, Detroit, Mich.	DANIEL EVANS, St. Louis, Mo.
WILLIAM MELLER, East Saginaw, Mich.	MATT BREEN, St. Paul, Minn.
JOHN H. HOSKINS, Grand Rapids, Mich.	WILLIAM DICKINSON, Syracuse, N. Y.
JAMES F. SHOVER, Indianapolis, Ind.	D. C. McCARTY, Washington, D. C.
W. W. TAYLOR, Kansas City, Mo.	W. H. FOULK, Wilmington, Del.
GARRETT DUNCK, Milwaukee, Wis.	E. B. CRANE, Worcester, Mass.

Directors for Brooklyn, N. Y., and Hartford, Conn., were not appointed.

### THE STANDING COMMITTEES.

#### LEGISLATIVE COMMITTEE :

MARC EIDLITZ	New York, N. Y.
WILLIAM HARKNESS, JR.	Philadelphia, Pa.
E. L. BARTLETT	Baltimore, Md.

#### ON STATISTICS :

L. P. SOULE	Boston, Mass.
W. J. STAPLETON	Detroit, Mich.
DANIEL EVANS	St. Louis, Mo.

#### ON RESOLUTIONS :

A. McALLISTER	Cleveland, Ohio.
WILLIAM W. TAYLOR	Kansas City, Mo.
GARRETT DUNCK	Milwaukee, Wis.

#### ON UNIFORM CONTRACT :

GEORGE C. PRUSSING	Chicago, Ill.
JOHN J. TUCKER	New York, N. Y.
A. McALLISTER	Cleveland, Ohio.

### DELEGATES TO CONVENTION, 1889.

BALTIMORE, MD. Delegates from THE BUILDERS' EXCHANGE. E. L. Bartlett, William Ferguson, Noble H. Crager.	CHICAGO, ILL. Delegates from THE BUILDERS' AND TRADERS' EXCHANGE. George C. Prussing, George Tapper, D. V. Purington, C. W. Gindele, W. P. Ketcham, William Grace, M. J. Sullivan, F. S. Wright, E. V. Johnson, A. E. Wells, E. A. Thomas, A. J. Weckler.
BOSTON, MASS. Delegates from THE MASTER BUILDERS' ASSOCIATION. Benjamin D. Whitcomb, William H. Sayward, L. P. Soule, Lyman D. Willcutt, David McIntosh, James I. Wingate, C. E. Clark.	CINCINNATI, OHIO. Delegates from THE BUILDERS' EXCHANGE. W. H. Stewart, J. C. Harwood, George Hummel, G. F. Nieber, J. M. Blair.
BROOKLYN, N. Y. Delegates from THE MECHANICS' AND TRADERS' EXCHANGE. F. J. Ashfield, James Shorkey, B. C. Miller.	CLEVELAND, OHIO. Delegates from THE BUILDERS' AND DEALERS' EXCHANGE CO. A. McAllister, R. H. Jenks, C. C. Dewstoe, M. E. Kavanaugh.
BUFFALO, N. Y. Delegates from THE BUILDERS' ASSOCIATION EXCHANGE. Charles A. Rupp, E. N. Hager, J. J. Churchyard.	
CHARLESTON, S. C. Delegates from THE MASTER BUILDERS' ASSOCIATION. Henry Oliver. (Absent.)	

DETROIT, MICH.  
Delegates from  
THE BUILDERS' EXCHANGE.  
Alexander Chapoton, Jr.,  
W. G. Vinton,  
W. J. Stapleton.

EAST SAGINAW, MICH.  
Delegates from  
THE BUILDERS' EXCHANGE.  
George T. Elliot,  
Thomas Emery.

GRAND RAPIDS, MICH.  
Delegates from  
THE BUILDERS' AND TRADERS'  
EXCHANGE.  
John Rowson,  
John Hoskins.

HARTFORD, CONN.  
Delegates from  
THE HARTFORD BUILDERS'  
ASSOCIATION.  
(Absent.)

INDIANAPOLIS, IND.  
Delegates from  
THE BUILDERS' EXCHANGE.  
Wm. P. Jungclaus,  
Hiram Howland,  
James E. Shover.

KANSAS CITY, MO.  
Delegates from  
THE BUILDERS' AND TRADERS'  
EXCHANGE.  
William W. Taylor,  
J. F. Daveney,  
C. E. Force,  
Wm. E. Emery.

LOUISVILLE, KY.  
Delegates from  
THE BUILDERS' AND TRADERS'  
EXCHANGE.  
Thomas Armstrong.  
(Absent.)

LOWELL, MASS.  
Delegates from  
THE MASTER BUILDERS'  
EXCHANGE.  
(Absent.)

MILWAUKEE, WIS.  
Delegates from  
THE BUILDERS' AND TRADERS'  
EXCHANGE.  
Richard Smith,  
Garrett Dunck,  
Thomas R. Bentley.

MINNEAPOLIS, MINN.  
Delegates from  
THE BUILDERS' EXCHANGE.  
H. N. Leighton,  
Barclay Cooper,  
E. F. Dodson.

NASHVILLE, TENN.  
Delegates from  
THE BUILDERS' EXCHANGE.  
(Absent.)

NEW YORK, N. Y.  
Delegates from  
THE MECHANICS' AND TRADERS'  
EXCHANGE.  
John J. Tucker,  
Marc Eidlitz,  
Samuel I. Acken,  
Daniel Herbert,  
Henry W. Redfield,  
Albert G. Bogert,  
Wm. Brennan,  
A. S. Dickinson,  
George Moore Smith.

PITTSBURGH, PA.  
Delegates from  
THE BUILDERS' EXCHANGE.  
(Absent.)

PHILADELPHIA, PA.  
Delegates from  
THE MASTER BUILDERS'  
EXCHANGE.  
John S. Stevens,  
Wm. Harkness, Jr.,  
G. W. Roydhouse,  
J. B. Cooper,  
J. J. Weaver,  
H. R. Coulomb,  
F. F. Black.

PROVIDENCE, R. I.  
Delegates from  
THE MECHANICS' EXCHANGE.  
J. W. Briggs,  
F. B. Ross,  
Geo. R. Phillips.

ROCHESTER, N. Y.  
Delegates from  
THE ROCHESTER BUILDERS' AND  
BUILDING SUPPLY DEALERS'  
EXCHANGE.  
Charles W. Voshall,  
T. W. Finucane.

SIOUX CITY, IOWA.  
Delegates from  
THE CONTRACTORS' AND BUILDERS'  
EXCHANGE.  
F. F. Beck,  
Frank Clark.

ST. JOSEPH, MO.  
Delegates from  
THE BUILDERS' AND TRADERS'  
EXCHANGE.  
John DeClue,  
R. K. Allen.

ST. LOUIS, MO.  
Delegates from  
THE MECHANICS' EXCHANGE.  
Wm. A. Rutter,  
Daniel Evans,  
Anthony Itner,  
Thomas P. McKelleget,  
Jeremiah Sheehan.

ST. PAUL, MINN.  
Delegates from  
THE CONTRACTORS' AND BUILDERS'  
BOARD OF TRADE.  
Edward E. Scribner,  
Asher Bassford,  
Matt Breen,  
Paul Haupt,  
A. J. Hoban.

SYRACUSE, N. Y.  
Delegates from  
THE MASTER BUILDERS'  
ASSOCIATION.  
William Dickison,  
Jno. Moore,  
James E. Baker.

WASHINGTON, D. C.  
Delegates from  
THE MASTER BUILDERS'  
ASSOCIATION.  
Charles A. Langley,  
S. J. McCarthy.

WICHITA, KAN.  
Delegates from  
THE BUILDERS' EXCHANGE.  
(Absent.)

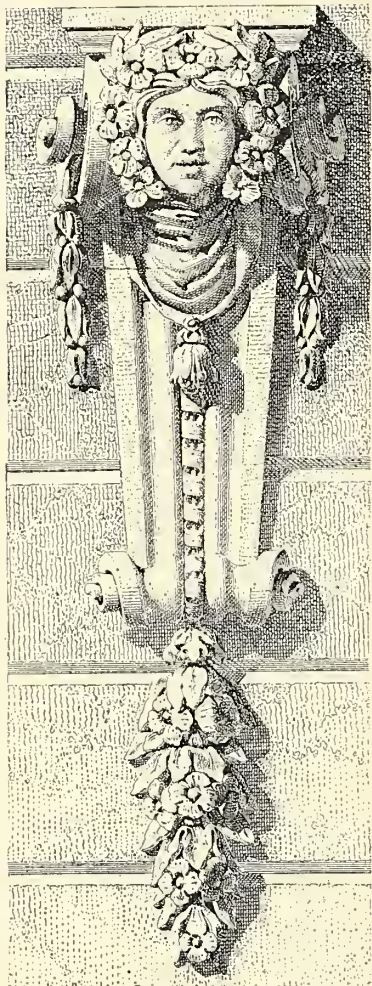
WILMINGTON, DEL.  
Delegates from  
THE BUILDERS' EXCHANGE.  
W. H. Foulk,  
— Gawthrop,  
A. S. Reed.

WORCESTER, MASS.  
Delegates from  
THE MECHANICS' EXCHANGE.  
E. B. Crane,  
A. M. Kelley,  
Geo. Kingston.



## The Relation of the Architect to the Builder.\*

BY O. P. HATFIELD, ARCHITECT, NEW YORK.



THE relation of the architect to the builder is a subject that is plain enough, and generally well understood. The architect determines the form of a building and decides upon the materials of which it is to be constructed. The builder furnishes those materials and erects the building. In most cases the architect stands by and gives minute directions as to all the details and minutiae of the construction, and the builder, being forewarned of these requirements, executes them faithfully in all their manifold intricacies, to make manifest the complete expression of the architect's design. There is a divided responsibility—the architect is responsible for the *law* of the building, so to speak, and the builder for the proper execution of that law. They work together, shoulder to shoulder, and the building grows up under their hands, perhaps a noble and enduring monument, a new creation it may be, testifying to their skill and the honorable integrity of their work.

The understanding of all this is very plain; one building after another is erected; they go up on every hand, and the architect and the builder come to be looked upon as indispensable in their vocations, and altogether very useful persons in their way. To be sure, as the architect's labors imply a little more ac-

ive exercise of his brains, and the builder's a little more close handling of heavy materials; the business of one is called a profession, and that of the other a trade; but both are regarded as equally honorable, and alike deserving to reap the rewards of honest industry. A worthy ambition impels both the architect and the builder to excel in their respective spheres of action, and the fortunate result is that the community profits by their emulation. Neighborhoods are beautified and enlightened and cities made more stately and refined.

The design of a building is generally the work of one mind—it may be a master mind—who harmonizes the parts, adapts the several divisions to one another, gives a purpose to every line, and thus evolves the spirit of truth and unity to consecrate his work. The actual erection of the building is the work of many minds, of many skillful hands, under the close and careful direction of several masterful chiefs, whose steady control and management of their strong and trained assistants finally bring the structure to its desired completion. The greater portion of the work, however, devolves upon two of these chiefs, the mason and the carpenter, and they by common consent are named the "builders." The walls and plastered interiors, the floors, the doors, the windows—these constitute the bulk of the building, and these are immediately under their control. The mason and the carpenter, therefore, are the principal contractors for the erection of the building, and in most sections of our country the whole contract is taken by these, all other building tradesmen coming in as sub-contractors, engaging to furnish their work directly to the principal contractors. But should the building require a great quantity of iron or of stone those who deal in these materials frequently contract directly with the owner, and also take the position of principal contractors; and I believe it is much preferred by them to take this position.

All of these several contractors and sub-contractors look to the architect of the building for instruction and direction as to the construction, setting and general disposition of their work, and tacitly and courteously obey those instructions—always providing that they are within the several requirements of the drawings and specifications, which constitute the body of the contract. But, as everyone who has had anything to do with building contracts knows, no drawing or specification can absolutely embody all the details of the work called for, and the constant explanatory instructions of the originator of the design are therefore not only necessary, but they are desired and sought for by the contractor, and gratefully accepted. Not only is this the case with the contractor, but his men fall into line also, and regard the architect as the highest in authority about the building, governing their action accordingly, and taking his word as law in the smaller as well as in the greater details of the construction. They recognize the necessity of having some one chief who comprehends

the whole plan of the work, and who can therefore reconcile the incongruities of the different branches of handiwork and bring order out of what seems to them a structural chaos. How many times do we hear workmen, when consulting with the architect, say, "Well, I will do just as you say." And their triumphal reply to all captious questions is, "The architect said so."

All this shows that in spite of the closest calculations of the builder, as to the quantity and the quality of the work, when he first makes his estimate of the probable cost, there is a wide margin of undefined detail that must be regarded in determining the exact sum to be named in his proposal. And it is true, also, that a close acquaintance with the methods of the architect is more or less necessary in determining the plus or minus quantities which enter into the calculation of this uncertain margin. The great disparity in the amounts of the estimates depends, to a certain extent, upon this feature of the calculation, and in this way suggests one of the several relations of the architect to the builder.

Although the architect really is, in his superintendence of a building, the agent of the owner, being in his employ and looking to him for compensation for his labors, yet he should not forget that he is also an expert and umpire, who is expected to maintain, always, a judicial frame of mind and dispense even-handed justice in all his decisions as between the owner and the contractor. He is supposed to be familiar with the best methods of executing the several divisions of work that enter into the construction of a building, and with the characteristics of the best qualities of materials as well as with those of the inferior qualities, and therefore capable of giving an unbiased opinion as to their merits, which, in most cases, the owner is not. The latter, therefore, relies upon the judgment, knowledge and experience of his architect to give a fair, honest and just decision upon all questions that may arise as affecting his interest or those of the builder during the progress of the work. The architect must be a man of character; his integrity must be beyond question, his judgment must be good, and his store of acquired knowledge in the line of his profession full and ample. The just mean of favor toward the two parties to the contract will then be observed by him, and the work will be brought to a close to the satisfaction of everyone. The owner will possess a solid, substantial building, and the builder, in addition to his cash profits, will have received a wider indorsement of his already good reputation.

Criticism is often exercised because the architect frequently shows that he has favorite builders, into whose hands he would prefer that the contract for his buildings would go. When estimates are required for his work in competition, it is to these favorite contractors that he issues his invitations for proposals, and should the owner suggest the names of certain new men as of good reputation and who had applied to him for a chance to estimate, the architect regards the application with not a little suspicion. This disposition of the architect is not infrequently regarded as partial, to say the least, and by this action he lays himself open to the charge of having some ulterior and not altogether worthy object in view. But another view of the case can be taken, no doubt the just one in a majority of cases. The builders whom he invites to estimate on his work are well known to him as men of good business qualifications, men who are in the habit of doing good work and doing it promptly. They have earned this first place in his regard by their sterling merit, by their intelligence, their skill and their fair dealing, and the architect knows that if he secures one of these men to take the contract in any case, one-half of his anxiety will be dissipated and a great portion of his labor of supervision be saved or the burden of it lessened. His success as an architect, therefore, depends in a great measure upon his ability to choose proper contractors for the owner.

Sometimes, however, when compelled to take one of these new parties, the architect makes the acquaintance of a very capable man, and at once puts him on his list as of one to be invited in soliciting future proposals. For of all men having to do with the erection of buildings perhaps the architect feels his responsibility the most, and he is, therefore, necessarily cautious as to whom he shall confide their erection. A wall or a whole structure may fall, and although it may be proved to have been owing to the use of inferior materials and workmanship by the builder, yet it is found to be more or less difficult to explain this to the public, and the architect's reputation to this extent suffers. Thus the necessities of the architect compel him to sift out the good contractors from the bad, and this winnowing process finally eventuates in purifying the trades and raising the standard of practice to a much higher level. At the same time the architect should extend to every builder, when asking the privileges of estimating, an opportunity to prove his standing by competent testimonials and a reference to extended work. When such a privilege is solicited by the builder it does not necessarily follow that his proposal is to be accepted, even though he may be the lowest bidder. But such a result may be accomplished, if he is able to demonstrate that his ability and business standing are so unquestionable that there is no doubt of his being able to fulfill his contract with satisfaction to both owner and architect.

For no fair competition in building estimates can be obtained where the standing of the bidders are not on a level. No man whose custom is to do honest work and to furnish the best materials desires to estimate in competition with those whose purpose is to supply neither the one nor the other. The conditions are not parallel, and it is only labor lost to attempt to bring down a proposal for good work to the level or below that of one which has been calculated for work of a much lower grade. It is very necessary, therefore, in issuing invitations for proposals, that regard should be had to the uniformly good character of the builders, in order that no wrong may be done to those whose intention is always to act in good faith and to maintain their usual high standard of work. This relation of the architect

\*Paper written by O. P. Hatfield, architect, and read by John McArthur, architect, before the third annual convention of the National Association of Builders at Philadelphia February 13, 1889.



to the builder is one of great delicacy, and calls for a well-guarded circumspection on his part, that well-earned privileges may not be sacrificed. The care here demanded in selecting the principal contractor for the work is just as necessary in the selection of the sub-contractors. He therefore evinces a certain amount of reasonable concern, when the principal contract is awarded, as to who are to be the sub-contractors, and thus there is established an interested relation also between the sub-contractor and the architect. Fortunately for the latter, the former knows that it is necessary for his work to pass the inspection of the architect and to meet with his approval before it will be accepted by the principal contractor.

A certain amount of unavoidable delays inevitably arise in the erection of all important buildings, and of some that are not so important. These hindrances to the progress of the work are caused most frequently from a want of the prompt delivery of material, and not seldom from the non-reception of the necessary working-drawings from the architect. The latter, therefore, should maintain a perfect system in the working of his office, so enforced as to cause the least delay possible in the production and distribution of such drawings, furnishing for each sub-contractor the class of drawings required for his work in the order in which it will be required at the building. Many of these classes of drawings have to be prepared at one and the same time, as the dimensions figured upon one class have to be transferred to another, and only a watchful care can insure their delivery in time for the proper preparation of the work to which they refer. It is only just that the builder should be provided with the necessary working-drawings in good time, and so as not to delay the execution of all his work in its necessary sequence. This desired end may be greatly facilitated by the close attention and determined application of the architect in his administration of the forces of his office. Many drawings can well be postponed, while others more urgently required can be prepared in their stead.

In preparing the specifications, also, the architect should have regard to the convenience and necessities of the builder. The description of the different classes of work should be so made as to include and concentrate under the several headings all the articles and details of work belonging to the various divisions respectively. A sub-contractor estimates of necessity upon a large amount of work, upon which, either by reason of his estimate being too high, or by some preference shown a competitor he fails to be successful. He, therefore, gets into a habit of estimating hurriedly, and in doing so, should he omit any item from his calculations, he would have to submit to a loss. This very undesirable result may be in a great measure prevented by bringing all the items of work furnished by any such sub-contractor under one special heading, and not distributed in dribbles throughout the specifications. The principal contractor is also then assured that he will not have to make allowance for such stray items in his own estimate, and a much more satisfactory result is obtained. In estimating for proposals upon a building of any importance, duplicates of plans and specifications should be furnished by the architect, either of blue-print drawings, or otherwise, in order that the estimators may make their computations at their own offices.

Thus by a close observance of their several duties and obligations, on the part both of the builder and the architect, their relation one to the other may be made to be pleasant, as well as profitable, and a feeling of genuine, mutual respect be engendered, that will serve to greatly soften the asperities of their somewhat rugged, but parallel paths. It is to be hoped that every architect and every builder, be he of low or high degree, may feel called upon to contribute his portion of the good will and high endeavor necessary to secure this very desirable result.

### Plastering and Stucco Work.\*

BY JAMES JOHN, CHICAGO.



Merton College.  
Oxford, Eng.

It has not been the fate of this simple, durable and inexpensive material to escape the assaults which every good thing in this world must encounter at one time or another. It has been called unclean; but it is not so of itself. Like many another wholesome and useful medium, it can be so illy made and be so indifferently applied

as to offer to dirt and insects abiding places due to the perverted ingenuity of man, not to the inherent defects of itself. In spite of all that has been said against it, it remains the universal lining for dwellings throughout the civilized world. Wealth may incase walls and ceilings in decorative woods and metals, but for the mass of mankind plaster must continue to be the simplest, cleanest, least costly and most enduring finish for homes. The health of the vast majority of mankind is, therefore, largely dependent upon the materials used in its mixture and the principles which shall actuate its proper employment.

It is undeniable that the custom that obtained some years ago of applying plaster into highly ornate designs was for domestic purposes unsanitary. The foliated, convoluted and otherwise multipurpose designs which used to be spread out upon ceilings, in cornices or special pieces, are gradually passing out of use. Their innumerable crevices served only as receptacles of dirt, in which the deposits were continuous.

The ornamental uses of plaster having been reduced by good sense and good taste, it remains still the most vigorous, as it is the oldest vehicle for carrying down generation after generation the masterpiece of art with which the golden age of sculpture enriched the human race. Humble as its components are, common and cheap as it seems beside marble, and paltry when compared with the metals that have, to a considerable degree, taken its place for reproductive uses, it *still* preserves the plastic art and enables youth to contemplate antiquity in its noblest achievements. Today plaster is revolutionizing industrial art; for us, and, in all probability, for those who are to come after us, plaster, lowly and cheap, but docile and durable, is the connecting agent with this greatest of men's indorsements in the past.

Plaster thus employed in duplicating works of marble, iron and bronze, is today extending the finest industries, modern and ancient. The erection of the new museums in England, near the great manufacturing centers, would be next to useless were not plaster available for distributing fac similes of the works, whose grandeur has made the name of Greece imperishable, and whose usefulness in development and the study of form, for all arts, is acknowledged to be unequalled. So potent is this simple medium, therefore, that it serves today as effectually as marble itself for the perpetuation of fine art; and by its endless variations of models, copied from every other material known in history, it is the supreme teacher of design. The reproduction of classic works at Kensington, and their dissemination throughout the provinces of the United Kingdom, has had the effect of making France fear for her supremacy in fine industrial productions. The important part that plaster thus plays in the Old World it will continue to play in the new. Wherever art places its altar, plaster will be there as its handmaid; and though it may be abused by carelessness and calumniated by more pretentious rivals, it must remain the most faithful friend of progress in taste, in science and in decoration.

Noble and varied as may be the uses to which plaster has and may be applied, I regret to say that the art of applying same, as a vocation, for the lining of dwellings is today so unremunerative to the artisan that it *almost* ceases to enlist the skill and intelligence that the art should command. This is due mainly to the want of appreciation by the architect and owner, whose only thoughts are for a semblance, for the time being, and are tempted by the questionable economy of saving a few dollars into letting contracts to men of no mechanical standing. It is hoped and expected that through the influence of the National Association of Builders, and the intercourse its executive officers may have with the reputable architects of the country, that the day is not far distant when it will be required of the artisan in the various branches pertaining to buildings, to arm himself with a proper and authoritative testimonial, giving proof that he is *skilled* in his art, and thus divest the wheat from the chaff, and the former be recognized and the latter find its level.

It is a well-known fact that plaster on a ceiling surface, in the event of fire, will detain it for a long time, *providing* any means have been taken *when* applied to secure it under such circumstances, and were these means more generally employed millions of dollars would be saved to this country annually.

As the fireproof construction is the exception, and as wood construction must predominate for years to come, therefore, more attention should be given to make the latter structure more fire-resisting.

During the last twenty years I have devoted much thought to this subject, and some of the devices I have had in that direction I have sought to secure by letters patent, and, strange to say, came in conflict with an English patent in the archives at Washington, bearing date 1797. The device then discovered has been slumbering there nearly one hundred years, and *today*, I know of nothing *more economical or effectual* to secure plaster in position in the event of fire than this same device. It is simply a wire netting, as used today for a foundation, but as these described placed over the bottom surface of the plaster, and then securely stapled to the furring or joints, and afterward the finishing coat of plaster applied over the surface. And as most every mechanic has at some time or other taken out a patent, or applied for one, it may be interesting to you to hear the language that Edmund Cartwright (as that was the name of the applicant) used in paying due deference to his sovereign lord.

After describing his invention in substantially the same language that obtains in patents of the present day, he closes thus:

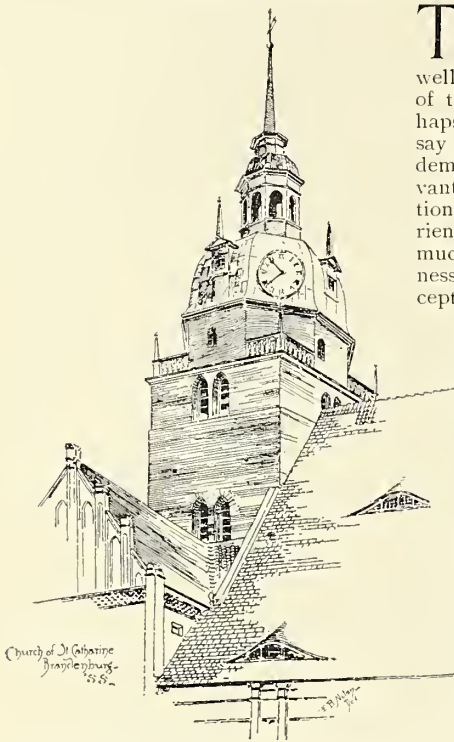
"In witness whereof, I, the said Edmund Cartwright, have hereunto set my hand and seal this eighth day of November in the thirty-eighth year of the reign of our Sovereign Lord George the Third, by the grace of God, of Great Britain, France and Ireland, King, Defender of the Faith, and so forth, and in the year of our Lord one thousand seven hundred and ninety-seven."

\*Paper read before the third annual convention of the National Association of Builders, at Philadelphia, February 13, 1889.



## Builders' Exchanges—Their Advantages and Opportunities.\*

BY W. H. SAYWARD, SECRETARY N. A. B., BOSTON, MASS.



TO those who have for many years been members of some of the well-established exchanges of the country, it may perhaps seem unnecessary to say anything in the way of demonstration of the advantages of such institutions, for the benefits experienced have become so much a part of daily business life that they are accepted as customary—as a matter of course.

To such I may say, you must understand that what seems to you an ordinary condition is, in point of fact, an exceptional one, and where the builders in one city are reaping the advantages of well-organized exchanges for the transaction of business, the builders of at least two-thirds of the cities of the country have either no exchanges at all, or support organizations that, from lack of good methods of administration,

are hardly deserving the name of exchanges of builders and traders. It is largely for the illumination and information of such builders as these referred to that I am to speak, and I must ask their more favored brothers to submit with patience while I recite the story which is so familiar that they may be tempted to call out "chestnuts," and yet which may be a revelation to many others.

When I reach that portion of my subject which comprehends the "Opportunities of Exchanges," I apprehend I may have something to say which will at least be directed to all, even if I do not succeed in making it interesting or instructive.

The advantages accruing from the habit of gathering together in one particular place at specified hours on every business day are perhaps more certain and definite to builders than to men in trade, and yet, builders have been almost the last among business men to establish this convenient and regular method of personal, every-day contact for the transaction of business.

I want to state just here that by far the larger proportion of builders' associations in this country are not established upon the fundamental feature of an exchange, namely, daily meeting at a specified hour for actual business purposes. They are not, therefore, in a true sense, builders' exchanges, although in some cases they bear that name, and they do not begin to realize the advantages they ought, or develop the strength which this daily contact creates and encourages. Boards of trade, chambers of commerce, merchants' exchanges, have existed almost as long as trade has existed for the readier interchange, or, more properly, the exchange, of business information.

Shakespeare even has given us a clue to an exchange extant in ancient Venice, for he makes Shylock speak of the Rialto, "where merchants most do congregate."

In the first place, a builders' exchange is, or should be, a rendezvous, a common place of meeting for those engaged in the various branches of building, whose trades have to be prosecuted in conjunction with each other; also for those whose lines of business make it desirable for them to frequently see the contractors in various trades for the purpose of selling material.

Viewed simply in the light of convenience, this daily meeting together of men engaged in various branches of the building business carries with it benefits so obvious as to hardly require reference.

But let us look for a moment at the particular reasons why these advantages are greater for contractors in various building trades than for other business men.

Merchants, men in trade, need to see each other daily "on 'change," it is true, but besides that they have a local habitation, store, warehouse or office, where, for the greater part of the day, they expect to be on duty for the transaction of business, and where others may be reasonably sure of finding them.

With builders the situation is radically different; comparatively few builders have shops and offices, and even for those who do, the necessities of building require their personal presence here, there and everywhere, wherever their work may be going on, and it is the exception to find them at what may be termed their places of business.

By far the larger proportion of builders in the various trades have no shops even, for they do not need them, storehouses, or "lockers," as they are commonly called, meeting and filling all their needs, while their offices are in most cases in their homes, where they

can use their evenings for "keeping books," estimating, and other office work.

The more modern methods of carrying on the building business, however, are tending in the direction of separating the business from the home-life, and I am very glad that it is so. Offices are getting to be more common, and work that used to be done by weary hands and exhausted brains at night and in the home is delegated to others, and to a place specially set apart. This is as it should be, but the other conditions referred to must always prevail. The builder must superintend his work wherever it happens to be, and therefore must continue to be an unreliable individual as to his whereabouts, and all the more unreliable in proportion to the number and location of his various jobs.

It is this peculiar characteristic of the building business and the builders' practice which makes the common meeting place of many men in the various trades in a city of the greatest advantage and convenience. It means, as the very first element of value, the greatest economy of time—and time, to the builder, of all others, means money—for it goes almost without saying that the builder who must need to see various other builders whose work is commingled with his, and yet who are as unreachable, with any certainty, as he is himself, finds the most complete saving of time in the rendezvous of the exchange, where he and those whom he needs to personally meet, and who need to have the same personal contact with him, have established the custom of being each day at a definite time.

On the floor of the exchange at the recognized "change hour," the builders may be reasonably sure, on any business day, of finding those men whose work must be prosecuted along with theirs, and whom they, in consequence, need to see to talk up some detail, or whose experience they wish to consult as to the feasibility of certain work, or whose estimates they want for immediate use, or whom they wish particularly to see without delay to correct some error, make some change, or hurry some particular portion. If one builder needs to see others for the quick consummation of many points in a short time, so they in turn wish to see him, and also to see others still, so that there is a perfect chain of convenience going on in endless combinations, and yet without confusion.

I have spoken, so far, in a general way of the convenience which accrues to the various builders by their being able to see many of their collaborators in a single hour, to accomplish which, by any other means, would occupy many hours, perhaps days. There is still another class of men whose lines of business bring them closely in contact with builders, whose interests are directly catered to by this daily congregation. Dealers in material find here their very best opportunity to meet the men to whom they wish to sell their goods. In the limits of an hour, and within the walls of one room, they are sure to find each day, or nearly every day, the men whose trade they seek.

The accomplishment of so much personal interviewing in any other way—and none of the modern conveniences of telephoning can take the place of it—would mean miles upon miles of travel, and hours upon hours of disappointment. In the economizing of time for the seller there can be no such sure recipe as the builders' exchange.

The presence of the seller, too, is in turn a direct advantage to the builder, and much time and patience is saved by the opportunities offered for personal explanation, so persistently needed in the purchase of the goods the builder uses.

The common meeting place then, once established as a daily habit, becomes as indispensable as any other of the many conveniences which aid the transaction of business and assist in the many movements of life.

The question may be asked, "Cannot I get along without it?" or the statement made, "I can paddle my own canoe."

Yes, anyone can "get along" without it, and can "get along," too, without many of the helps which experience has raised for the advantage of the world. Anyone who chooses can "get along" without using the steam transportation which now whisks him over the continent from Atlantic to Pacific in as short a time as it formerly took to travel from Maine to New York. He may, if he chooses, "get along" in the old-fashioned stage coach, but I imagine his journeying would be rather lonesome, and his feelings rather mortifying on arrival, to find that though he has "got there all the same" his competitors have "been there" and gone!

One may, if he chooses, in these days of rapid concentration, "get along" without using the telegraph or telephone and may send his messages by mail, taking an hour or a day, instead of a few moments of time, but I apprehend that he will discover that it would be wiser to use the means that his contemporaries are using, and save unnecessary friction in the accomplishment of his designs.

One may "get along" without using the aids that machinery has brought to the various details of work. He may, for instance, plane all his lumber by hand instead of using the power planer; he may, in fact, refuse any and all of the "lubricators" which have been invented to ease and shorten labor, but by so doing he will "get along" painfully, and "get left" even though he "gets along."

So, too, one can "get along" without the exchange, but it is a fact that cannot be disputed that he can get along much easier, accomplish much more in the same length of time, save travel and avoid unnecessary labor by this very simple means. It is very amusing, and at the same time somewhat annoying to those who have the management of well-developed exchanges, to receive quite frequent visits from some of the builders or dealers who assert so constantly and confidently that they can "get along" without the exchange, and who, when reminded that they are getting the advantage of the rendezvous, say "Oh, yes, I find it very convenient sometimes to run in here to find people whom I must see without delay," sublimely unconscious, all the while, that they are paying the highest tribute to the utility of

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the exchange idea, and apparently unmindful that in the occasional benefits they derive from the certainty of finding certain people at a definite place and at a definite time, they get for nothing what it costs others money to provide.

Nothing is more fallacious than the idea that the relative value of an exchange to the individual depends upon the frequency of his visits and the length of time he remains there.

The value of the postal service, the police service, the fire alarm or any of the departments maintained for the general good, is not demonstrated simply by the *number* of times that they are utilized every day, but by their certainty of operation when needed.

The individual who uses the exchange but once or twice during the week, may secure the same degree of advantage which the constant attendant gets; that is, he gets, when he wants it, the convenience which it is important he should have.

However few times during the week or month or even year the intermittent member uses the exchange, it is always there ready for use, and the groups of men are where he can put his hand upon them whenever he may need them.

It would be impossible to state in figures, with any degree of accuracy, the value to any individual of the exchange rendezvous, any more than the value of banking privileges and conveniences can be so stated—today the individual may get absolutely nothing from the contact, tomorrow he may secure a definite advantage, that may mean hundreds of dollars. In my personal experience I recall an occasion when in five minutes' time the exchange was worth \$5,000 to me—and this is but an example of many other *unrecognized* helps.

I have endeavored to briefly outline the exchange idea, and what it means in a very practical way, simply from the one standpoint of convenience, with its resultant economy of time; but I must not omit to say something in regard to the administration of the exchange and the many ways in which convenience may be ministered to, and the exchange made attractive.

To simply have a rendezvous need not mean more than the barest and most meager of accommodations, in fact, it might be only a meeting place upon the open street, the same as years ago in Boston the mechanics first established the custom of meeting "upon change," in humble imitation of the merchants who also were without a habitation and found the sidewalk a satisfactory place of meeting. What these ancient men used to do on rainy days, or when the storms of winter made it not only uncomfortable but impossible to use the public street as a place of meeting, I am not informed, but it is a fair inference that some shelter was obtained, which probably was a suggestion in itself that it would be worth while to have a permanent cover for pleasant as well as stormy weather.

The exchange, in its management, or "administration," as I like to call it, should be liberal, progressive. In and about the rooms which are to be the business center for so many people during so many hours in the course of the year, the comfort of those who are to occupy them should be a constant consideration. Appointments that shall comprehend all the improvements of the day should be freely placed at the service of members.

I shall take it for granted that the location of the rooms will be as central as possible in the financial, business portion of the city, but will briefly say that a location which is good enough for a first-class bank or a board of trade is not far away from where a builders' exchange will find it for its advantage to be.

Light and air are said to be very cheap, but though this may be true enough in its original application, it is truer still that they must be vigilantly sought and persistently striven for.

Two things should be considered indispensable in locating an exchange, namely, good light and favorable opportunities for ventilation. It is very unfortunate when for any reason the rooms selected for an exchange are dark and "stuffy." There can be no reason satisfactory enough to warrant such selection, and I say very decidedly that until these two fundamental features can be secured, better be without the exchange. I say this with the more freedom, because I know that it is always possible to obtain these two important desiderata, and there can be no excuse for neglecting them.

Money will always secure proper quarters, and there should certainly be no niggardliness in the selection of a home which shall have these prerequisites of comfort, or be susceptible of such alteration as may secure them.

A good location obtained, and opportunities for light and air secured, the next thing should be to utilize them and make the place attractive and refreshing to all who enter the doors. It is true that it is a place for business, but it need not be any the less cheerful on that account. It will need constant, daily attention to keep the apartments in cleanly condition, but it will pay! The merchant, the banker, the architect, the owner who visits the exchange will not fail to be favorably impressed if he finds everything ship-shape, sees that care is taken to have the rooms presentable at all times, with windows washed, floors scrubbed, brasses polished and every nook and corner cared for, while they will be unfavorably impressed in proportion as these things are neglected; but it is more in behalf of the members themselves that I urge attention to these details of order and cleanliness, for I am convinced that they are elevating in themselves, and the more one is accustomed to them, the more distasteful will untidy ways become, while personal habits even will be unconsciously modified by the constant suggestion of better things in one's surroundings.

The sanitary and toilet arrangements should be as perfect and complete as in any first-class hotel, and should be kept fresh and wholesome by daily care.

Too much cannot be said of the value of these two items of administration, and the appreciation of them can only be measured by the extent to which they are taken advantage of in well ordered exchanges, or by the outcry which would be made if these luxuries should be

discontinued. Individual letter boxes for mail matter or messages for members are indispensable and should always be under lock and key. When possible, "lockers" large enough to hold a roll of plans and some few personal effects should be provided, also under lock and key. Writing tables supplied with stationery and writing materials are, of course, indispensable and should be kept, the same as all else in the room, in the best and freshest condition for use by constant daily service.

The telephone service should be of the best and in this, as in every other modern device made use of, the management should keep abreast of the times by having all improvements as rapidly as they are presented.

In fact, without particularizing further, everything that members can possibly expect to find in such place should be obtained, of the very best sort, and the management should be constantly on the alert to anticipate wants and provide such accessories as will put builders' exchanges on a par with any and all others.

There is really no such thing as completely stating all that can be done in this direction, for new demands are constantly springing up and they should be gladly met as indicative of growth in the right direction, as evidence that builders have ceased thinking that anything will do for them, and have found out the advantages of an exchange.

The various things which I have mentioned help to emphasize the convenience of the common meeting-place and, when once realized, will not be readily relinquished. To secure all these advantages there will have to be liberal expenditure, and to make this possible there should be no narrow ideas in the matter of the annual assessment upon each member.

It should always be borne in mind that the practical, every-day benefits of which I have spoken and to which I have confined myself, are not the only ones to be provided for, and yet these alone are sufficiently valuable to warrant a payment by each individual much greater than he will ever be called upon to make.

The aggregate expense of running an exchange upon liberal principles may be large, but the expense to the individual will be light and, in comparison with the benefits received, may be considered as absolutely insignificant. Yet there can be no greater mistake made than to scale down the annual assessment to a figure so low that the only wonder is that any assessment at all should be made.

That which costs little or nothing is seldom of any value, and the membership which is attracted by the fact that the assessment is small is not of a character to increase the desirability of the institution. I shall have more to say on that point later on. Make the advantages of meeting together and the conveniences with which you surround yourselves so evident that membership with you will be sought almost regardless of expense.

These institutions should not be run as money-making machines either, but rather as money-spenders, so long as there are legitimate ways in which the interests of the whole may be fostered and cared for, and as long as the building business exists there will be field enough for this sort of work—of this, too, I shall speak in the other branch of my subject.

Turning now from the consideration of the practical advantages of the exchange as a business rendezvous, I wish to say something of other things none the less practical, but of a character so little developed or understood that they may be spoken of at present as unimproved opportunities.

No portion of the business community has ever needed the steadying of uniform methods more decidedly than the builders, and none have been so absolutely without them. No kind of business has needed so urgently the blessings of system in its contact with others as the building business, and yet, of all others, it seems to have been the most uncertain and aimless, therefore the most imposed upon.

The very character of the business seems to invite irregularities, and its multitudinous complications make the situation an extremely difficult one. This condition, which in itself has been and is *likely* to be vexatious enough, has been and is rendered still more serious by the fact that the large proportion of building mechanics have been illy furnished with the fundamentals of education, and have been exceedingly rudimentary in their ideas of business and business methods. Coming largely from the working classes, so called, they have been, by the circumstances of their birth and the necessities of their environment, deprived of the opportunities which sharpen the intellect and prepare the nerves for the conflict of business life.

It speaks well for the native worth of the men who have made the building business honorable and successful, when we consider the obstacles which have been overcome; but we find an explanation in this fact of lack of business training of much that has burdened the builders of the past, is still burdening the builders of today, and is likely to be a factor in the conditions of the future, although great changes for the better are bound to flow from the more general education of the people, and the efforts which we, as builders, and as intelligent business men, are making for the benefit of ourselves and our contemporaries, as well as for the future builders of the country.

Here, then, is the field of neglected, or rather unimproved opportunities which the builders' exchanges of the country should look upon as their particular province of usefulness, and to cultivate which the relation which they have established with each other, primarily as a matter of convenience, will develop into the very best foundation for practical and permanent results.

Stated concisely, the opportunity is this: The establishment of system, the maintenance of uniformity and concert of action, the definite statement of just and proper methods, which shall develop a "practice" to serve as a guide in all controversies, whether they be between builders themselves, or between builders and the rest of the world, to the end that builders may know precisely their rights in the



premises; the provision of means whereby irregular and improper practices may be checked and dishonest methods punished; in short, the standing upon guard, as it were, for the general interests of the whole, and through that the interest of the individual, with the same watchfulness that is exercised for the comfort, convenience and protection of those who come into the shelter of the exchange rooms for the transaction of business.

Brought together at first simply for the purpose of securing convenience in transacting business with each other, a relation is established which makes possible at once that united action which alone can bring about reforms, or establish definite methods and practices. The purposes and desires of the individual are inoperative until a sufficient number of other individuals not only think the same, have the same purpose and desires, but *act* in concert with him to the end that there may be a definite result.

To secure any decisive end it is necessary to consult together as to the best course of action to secure it, for it is very evident that though many individuals may desire the same thing, if left to follow out the idea each in his individual capacity, and from his individual standpoint, the worst sort of confusion would ensue and the end sought for would not be obtained.

The exchange idea utilized primarily for a purely business purpose creates a certain community of feeling, establishes a common interest, accustoms the members to each other, puts them gradually *en rapport* with each other, makes it seem natural to act together, puts them "into condition" as it were, easily and most imperceptibly, for the exercise of that cumulative force which alone produces appreciable results for the general good.

Men who are in the habit of doing business together, who meet each other day after day, and day after day, are the very ones to hold up each other's hands in the pursuit of any object for the benefit of the whole, and it is a natural sequence that it should be so.

All work which I am considering under the general head of "opportunities" might be called "association work," as distinctive from "exchange work," but both departments need the sinews of war, and while the collections may all be made through the exchange, the amounts called for should comprehend a large expenditure, if necessary, under the head of "association work."

The "sinews of war"—yearly assessments. It is on this rock that many associations "split," and if they do *not* split they are stranded and comparatively helpless. As I mentioned before in treating the other branch of my subject, this question of the funds necessary for the carrying on of association work must be looked upon in broad and liberal fashion.

Associations should not be entered into with the expectation that the return is coming in somewhat the same way that it comes from an investment in bank, railroad or real estate; yet a large majority of men are staggered by a yearly assessment at all commensurate with the importance of work undertaken, crying out, "I can't see any return for my money." I feel assured that if they thoroughly investigate the ultimate gain that comes to them in the protection to individual interests through aggregate combined action, of which they form a part, and which their stipends help to sustain, they will no longer exclaim "I want dividends on my investment," but will say, rather, "I am not paying anything like as much as I ought for the good attained for the whole and in which I am an individual gainer."

It would be hard to definitely state in dollars and cents the gain that is to be from any one of the objects which we are gathered here to promote, yet the dullest mind must admit that the gain to the whole community of builders will be enormous, while the share of benefit which each individual will receive is as impossible of definite statement as it is positive in fact. It is a well-worn maxim that "republics are ungrateful," and it is equally a truism that members of associations are ungrateful and quickly forget what has been *saved* to them, in their anxiety to get a dividend back from "dues" which they should really look upon as payment altogether insignificant in proportion to the benefits derived. All this argues from the premise of a properly managed association producing good for its members, protecting their interests. To secure this sort of an association, it must be a permanency and always in active service. Ability must be at the helm and must be properly remunerated for constant service.

I am convinced that but few business men have anything but a superficial idea of the purposes, possibilities and legitimate work of associations. They look upon them as a sort of special arrangement to meet a special emergency, and when that crisis is past, that the association may be permitted to languish, to be revived again when some special demand again calls for special action. Such spasmodic attention to the machinery will, to my mind, greatly deteriorate its vitality, and will ultimately destroy its reliability and facility of movement.

It is the most natural thing in the world for men to peruse their individual callings, conscious all the while that many evils exist which will be detrimental to their interest some time or other, but relying upon their good luck to provide for them a way of escape for the present, and as long as they do escape they appear to be content. But evils will not remain at a standstill, and if neglected are sure to increase, while "good luck" cannot always be relied upon. Discretion, therefore, would seem to point to keeping everything in readiness for action and to making a study and a business of eradicating evils.

Associations should be treated in the same way that any regular department of work is treated—in a business-like way; associations, in fact, should be made a business. For this reason the exchange proper, with its constant life and action for the support of a condition favorable to the transaction of business, furnishes the best possible basis for active and effective association work; the bearings, so to speak, are alighted and the wheels ready to set in motion; no waiting

for the preparation of machinery is necessary; it is always ready and can be put into service at a moment's notice. Things that are not absolutely evils that need reforming are also the opportunities, if not the absolute duties, of associations. It is time for something more than negation; we should not occupy ourselves solely with saying *this* is wrong and *that* is wrong—we should have foresight and wisdom enough to *prevent* wrong by preparing better methods and by establishing the *right*.

That we may take this advanced and positive ground, we must have competent hands and brains to work for us, for the bulk of the members in every exchange and association must perforce be busily engaged in carrying on the manifold details of work, and should delegate certain preparatory study and work to others. This kind of service is needed all the more now that we have a central organization which plans the work and specifies and recommends the methods best to be followed, leaving the details to be carried out by the filial bodies.

There is enough, yes, more than enough to do, and filial bodies of this great national mother must recognize their duty to her and their opportunities for themselves by carrying out through men specially selected for their fitness for the work the many things there are to do and always will be to do.

To get such men they must be properly paid, and the money will be well spent, for a single brainy man may, by his alertness and skill, stop a leak that, neglected or unseen, would bring untold disaster to many.

Such men are the surveyors and engineers who carefully examine the ground on which and over which we are to build, and foreseeing dangers, prepare a way to avoid them to be approved and sanctioned when laid before the associations for action. These are the men upon whom we must rely for the making a business of association work, who are to labor when the rank and file of the membership are closely engaged in their private affairs; they must do the studying, prepare the ways, suggest the methods and get things into definite shape for others to act upon—the others haven't time. Protect yourselves, then, by having men in your service whose business it is to *find* time and to improve it for your benefit.

Let no one say, "There is not enough to do." I have been there and I know there is plenty. But if you want a definite suggestion, let me say, right here, that there is one subject which for many years is sure to be large enough to warrant the best of work, the closest care and watchfulness of the best men that each of the affiliated bodies can secure, and that is, the apprenticeship plan approved by the National Association of Builders.

And I will say, also, although it is not directly called for by my subject, in answer to those who question the desirability of this national body. If it has nothing else to do but the complete establishment of this system, in that alone is there warrant enough for all the time, for all the money, for all the brains that can be put into it for the next twenty years to come. And if for the central body this is true, then is it equally true for the filial bodies.

One of the results to follow from the greater activity of builders' exchanges, through improving their opportunities, will be a greater prominence in the eyes of the public, and the value of builders, as men of affairs, will be recognized as never before. Their desirability, as practical men in positions of public need where their experience will tell for the general good, will be continually before the communities in which they live, and they will not be so often forgotten, as heretofore, when men are being chosen to fill important places of trust when their peculiar qualifications demonstrate their fitness.

One of the reasons why laws, ordinances and regulations of all sorts, from the tariff down, are so often ineffective or ridiculously opposite in operation to the intent of those who framed them is, that men of experience in the particular questions treated have not been utilized in their consideration. I had occasion, a few days ago, to examine one section of the tariff in order to give an opinion on the application of the law to certain facts, and found, to my astonishment, that, owing to certain ignorant use of terms with which any intelligent builder is perfectly familiar, and which he could have properly used, the very purpose of the law was defeated.

With the immense amount of construction work which our communities must always undertake, the practical help of builders, with their dearly bought experience, is needed, and our exchanges and associations must keep the public familiar with the men we have among us fitted to meet the public necessity.

I can remember perfectly how, when my father (who was one of Boston's old-time mechanics) was elected on the school committee, a great commotion was raised among certain people, who exclaimed, "What do we want of a mechanic on the school committee?" And I remember, with a great deal of satisfaction, how one level-headed old fellow on the board replied (probably with some recent occurrences in his mind), "We want a mechanic on the committee so that when we build another schoolhouse we won't have to tear it to pieces to get the stairs in, and won't have to pull up the drains because they pitch into the house instead of toward the sewer."

It is through association with each other that men and their abilities become known, and a good live exchange of builders in a city, an exchange which takes an interest in the affairs of the municipality and does not hesitate to let the public *know* that it is alive, will soon make a reputation for itself as one of the institutions of the place, and its members will be sought for when their special qualifications are needed for performance of public affairs.

Great works jeopardized because of incompetent men placed in authority have been common history for many years. This should be different; we should bring our men to the front, make them known, and say to the public, "When you have great practical work to be done don't fill up the commissions with lawyers and professional men,



but put a proper quota of mechanics on the board, men of experience in this character of work, and money and honor and reputation will be saved and the general interest prospered."

Already has the tide turned in our direction.

When that honest, fearless mayor of the great metropolis—himself a builder—looked about him for a man to put upon the aqueduct commission who could not only be trusted as an honest man, but because he was competent through his long experience in mechanical work to be in such a position, he came to this National Association and took one of its prominent officers, Mr. John J. Tucker, of New York. We all know that he made no mistake when he made this selection; and it should be our determination to encourage the following of this example by every means in our power, and one means is that which I have cited, namely, making our exchanges prominent features in our cities, making their influence felt, and by building up a proper respect for the individuals which form them, as citizens worthy to be recognized in everything that is undertaken.

This leads me very naturally to one important suggestion which I desire to make before closing: I am thoroughly convinced that the very best thing that builders' exchanges can do to advance their interests in the communities where they exist, and put their affairs upon a substantial basis, is to purchase a building or purchase land and build one suitable for their occupancy, and in which they can, perhaps, accommodate other interests connected with building.

My reasons for these are many, but I will only state a few of them.

In the first place, no body of men acting as a corporation for investment of money in real estate can begin to handle a piece of property to such good advantage as an exchange of builders who, while supporting their place of meeting for the transaction of business, and getting their full money's worth for every cent of their assessment, however large it may be (and here let me remark that but few exchanges in this country have yet educated themselves up to a proper point in yearly assessments), will have a good balance on hand every year to carry over to the building account, and almost before it seems possible the debt, if there is any, will be wiped out and the property owned, free and clear. It is a good business transaction and will place the exchange, in time, in command of money from rentals to apply to the many things it will always find opportunity of doing. Then, again, it gives you at once a standing and respectability in the community; it is an effective way of keeping in the eye of the public and establishes you as a landmark.

I was very much amused the other day, and pleased, too, when a builder from Connecticut who came to Boston for the purpose of consulting me upon exchange matters, told me that he thought he would test our standing in the city and find out whether we were widely known, so, as he stepped from the train he asked a policeman where our exchange was, and without a moment's hesitation the officer gave him a complete direction. Not content with this he purposely asked another and another of the men he met and everyone knew exactly where we are located; even the fruit vendors upon street corners gave him correct answers, and he came to the conclusion that we were the best known of any of the societies in the city.

We own our building, gentlemen, and it is becoming more and more of a landmark every day. Philadelphia has followed our example, and I say to you all, "go and do likewise." If you are located in a prosperous and growing city, you cannot fail to make a good investment, and the property will largely increase in value on your hands.

In addition to these reasons, to own your building creates a sense of proprietorship among your members, and fills them with an interest in common which always seems to accompany the ownership of property. It is a good solidifier—a good anchor.

But I must not say more in this direction. Before closing I give you this word of caution about membership: Always consider quality more than quantity; do not strive for great numbers, but excellence in those you have as fellows. It is a safeguard both in times of peace and times of danger, and will facilitate the management of your affairs in whatever direction they may tend. With large numbers you must remember that the difficulties of management increase in geometrical proportion, and unless the quality is carefully watched, you may find yourselves handicapped by a superabundance of unthinking members, who will defeat your attempts to improve your opportunities to do any of the worthy and important things that the national body is today recommending.

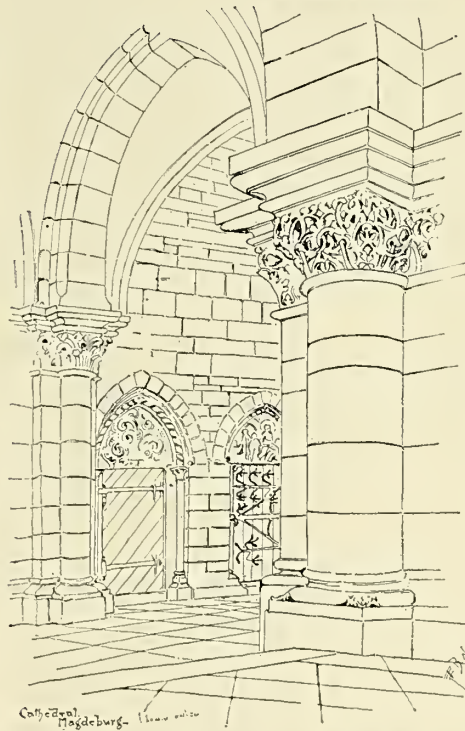
Gentlemen, I have tried to make this address short, but have succeeded in making it too long, I fear, for my hearers. The fact of the matter is, there is no place to stop; it is all virgin ground, and there are constantly new and interesting specimens springing up which demand attention. I have tried to confine myself to general statements rather than to make them specific, for the reason that I should have been still more prolix had I attempted to take up too much in detail.

In a general way I might say that the opportunities for exchange or association work are being developed, materialized, put into definite statement now in the best and most effective way for the largest results by the national body. Let each filial association hold up the hands of the central association; do its level best to carry out the principles and practices approved by it, and it will not only be doing good service for its own needs, but will be a wholesome portion of the national body, and a strong link in the chain that binds us together.

ARCHITECT A. DRUIDING, Chicago, has prepared for his many clerical clients a book on church architecture, containing general rules and instructions in building churches and giving twenty churches, built or to be built, with general description, also perspective views of two proposed cathedrals. The preface is written by the very Rev. Dr. Otto Zardetti, V. G.

## Masonry.\*

BY JOHN J. TUCKER.



IT will not be my purpose to inflict upon you an attempt of any description of the dry matter of masonry as is usually compiled in statistical reports of engineers, so far as going into the question of tensile strength, and crushing weights, and all that sort of dry matter. I know from observation and experience how dry such subjects are to a body called together for the purpose of listening to something that may be expected to redound to their interest, comfort and edification.

The question of masonry, of course, presents itself as an old, dry subject, in any form that you look

at it. Bricks and mortar are about the sum and substance of the whole thing, and in order to show you that there is a beginning, I will simply go through the form that my predecessors have to show you that there was a beginning, and how they have improved by time, and how they have not improved by time.

The trade of a mason is probably one of if not the oldest manual trade followed by mankind, allied, as it is, so closely to his wants. Being of such antiquity, it has two fields, the historical and mechanical, and we will take them up in that order.

The first instinct of all creatures of animal life is the obtaining of food; that being satisfied, the next is that of securing shelter. Before man exercised his faculty of invention as an architect, he may have crept into hollow trees or inhabited caves as tenants in common with the beasts. This, however, was not always sufficient protection from the force of the tempest or the rigor of the climate, and better security was required.

The natural tendency of all is to turn to that which is nearest at hand and try and make it serve our purpose; consequently we find that the earliest histories give us as facts that loose stones were laid up, forming a rough wall, and covered over on the top by branches of trees. In this way a rude habitation was formed, and from this beginning have formed the marvelous edifices that now dot the face of the world as evidences of the growth of man in advancement and civilization. In many localities, however, stones were not to be had, or it was impossible to shape them into the forms desired. This led to the finding of a substitute, and was the cause of the making of what we know today as brick. A convenient and enduring material was obtained, and from the only authentic record of this period of the world's history, the bible, we learn that it was the principal material employed in the construction of the city and Tower of Babel.

It is supposed that the city of Babylon occupied the same site as the Tower of Babel. Strengthened and fortified by successive sovereigns, it became one of the wonders of the world. Historians say the walls surrounding the city were 360 feet high, 87 feet thick, and 60 miles long. We are apt to be somewhat incredulous about the measurements, yet when so many stupendous monuments remain to demonstrate the power and skill of these ancients, we know not where to fix the bounds of our belief.

The site of this great city has been identified. Sir Robert Kerr Porter, who visited these ruins some years ago, in speaking of the Temple of Belus, one of the most prominent structures in the city before its destruction, says that on the north side of the ruin there are large masses of fine and solid brickwork, built of kiln-burned brick, united by a calcareous cement.

The great antiquity of this work conclusively proves that kiln-burned brick are of very ancient date. Those first made were sun-dried, but being imperfect and not of sufficient durability, artificial burning was employed, and the quality of the material and labor is best appreciated when you say that the work is standing today, over three thousand years after completion. Climatic influences undoubtedly have a great deal to do with its preservation, but considering its great age, we cannot but admire the skill of a people that we of today regard as little better than barbarians.

From Asia let us turn to Africa, and here we find the largest structure in the world and, perhaps, the largest ever constructed. I speak of the Pyramid of Cheops; it is the greatest mass of material

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which man has ever placed together to form a single building, as far as is known.

The material employed is granite and limestone, and in many cases the stones are so nicely cut—apparently no mortar has been used for the joints, and the space is so small that you can hardly detect it with the eye. How this masonry was constructed, how these great stones were lifted to their position, etc., have puzzled engineers for years, and it is not my province to discuss; suffice it to say, that there it is, an everlasting monument of what the mechanics of those times could do; and, taking everything into consideration, I doubt if we have made any great amount of progress in perfecting material, as far as it is artificial, since that time.

One thing is particularly noticeable in looking over these relics of ancient times, and that is that all that is left of them is masonry. We do not find that they employed metal to any extent. We have abundant evidences that they were workers in metal in divers directions and had attained great proficiency, but for construction purposes it was not used.

Leaving the remote periods, we will advance chronologically, and the next most important is the Roman about the time of the Christian Era. Of this period evidence abounds of the high degree of perfection that masonry had obtained, and, in fact, some of their structures, such as bridges in use today, show a superior quality of workmanship and knowledge of construction and material. The Roman Empire at this time practically controlled the civilized world, and its wealth was concentrated in the hands of the government and nobility. In all branches of learning they were educated to the highest degree. In architecture and sculpture they have left us relics that have always been looked upon as models of the highest degree of perfection.

In chemistry and physics they were equally well learned, and were continually experimenting. In the field of building materials national pride was very great, and it was their highest ambition to leave monuments in the form of structures that would last for ages to come.

Consequently, we find their cements and mortars of a very high quality, as they fully realized that the building material must be of equal endurance to that of the material employed, be it stone or brick.

After the fall of the Roman Empire and the absorption of western Europe by the barbarian tribes of the East and of Asia, we find a rapid decline in the character and quality of the mechanical arts. As I have said, the Romans were the most highly cultivated and learned of all the people of their time. Their conquerors were just the reverse; in fact, as far as civilization was concerned, they knew absolutely nothing, and of the mechanical arts their knowledge was extremely slight. The old saying is that necessity is the mother of invention, but, unfortunately, in their case the necessity did not exist; consequently we find that while under the Romans the work was of a most perfect character, even to the minutest detail; under the dominating influences of these savages, crudity and massiveness soon became the rule, and the finer qualities of the work, as of the people, were soon obliterated.

Without schools and instruction, ignorance in a few generations had full sway, and the arts and sciences, so fully developed in the past, soon drifted into oblivion, and were forgotten by all but a very few.

In masonry this is very noticeable; instead of the fine lines and exact workmanship we now find incongruous and irregular masses of stone, and to obtain required strength quantity instead of quality is employed.

This, to a certain extent, as I have said, was due to the very general lack of education of the masses. The learning was almost exclusively in the hands of the priesthood, and we find it best exemplified in the buildings remaining of that period. The cathedrals and religious edifices were models of beauty and elegance, not only in their architecture, but in their construction.

Beyond the ecclesiastical, however, we find nothing, and the presumption is that the mechanical trades were taught and followed to a certain extent in the priesthood itself, as by this means only were they enabled to have a body of workmen capable of erecting such enduring monuments.

Architectural ability was not sufficient, however, to insure their construction; mechanical was as necessary, and finding works of this class to be the only ones showing these qualities, we are forced to the belief that it was by their own hands these buildings were erected.

This condition of affairs, however, could not go on forever; population was increasing to such a degree that the buildings to be erected were too numerous to be constructed by their own hands, and laymen were taught the different branches of masonry.

It must be borne in mind that at this time buildings were all masonry, even to the roofs, which were mostly formed by arches, and wood was employed for ornament and interior fittings only.

The nature of the trade of a mason forced upon him one very great difference to all other mechanics. All the usual trades were local and the exercise of them confined to the locality where the craftsman resided; the masons, on the contrary, were forced to go where a great work was being executed. His work never came to him, nor could it be carried to his house, he was forced to go to it. And when a great work was to be erected in any town which was beyond the strength of those of the place to undertake, masons were sent for and came from all the neighboring districts to obtain employment.

At a time when education was almost unknown among the laity, and not one in a thousand among the masons could read or write, it evidently was essential that some expedient should be hit upon by which a mason traveling to his work, or in search of the same, might claim the assistance of his brother masons on the road, and at the same time enable him to take his proper rank among the mechanics in a place where he was a stranger, without a tedious examination or a practical proof of his skill. For this purpose a set of secret signs was invented which enabled all masons to recognize one another as such,

and by which each man could make his rank known to those of similar grade without further trouble than a manual sign or the utterance of a recognized password.

Other trades had something of the same sort, but it never was necessary for them to carry it to the same extent, being for the most part resident in the same place and personally known to each other.

These masons who from these circumstances became so completely organized, were men skilled in the arts of hewing and setting stone, and acquainted with all recent inventions and improvements connected with their profession. Their traveling from one country to another gave them opportunities to, and they did become the best learned of all the mechanics of their time, and capable of carrying on any work that might be intrusted to their care, though they never seemed to have attempted to exercise their calling except under the guidance of some superior personage, either a bishop, abbot, or accomplished layman. As a class they were exempt from many of the exactions of the feudal laws of the time, and to this day we use a term undoubtedly descended from those times to designate a thorough workman, namely, that of journeyman, or one who is fitted to journey, as a distinction from an apprentice or apprends, one who learns.

What connection historically these mechanics may bear to the order known as the Free Masons, I am unable to say, but have no doubt, if carefully looked into, a very intimate one will be found to exist. The strong bond of union among the workmen had a great influence on their productions; new methods were tried, and, if successful, retained, and the best results in different countries were soon known among the rest, as the buildings show for themselves, and the entire influence was toward improvement in a much greater degree than is shown in the other mechanical trades. And although this union, if I may call it so, was probably the strongest ever existing among mechanical workers, I have not found any mention made by any author of its strength being used to coerce an employer into paying higher wages or giving shorter hours. Conspiracy laws in those days were very severe, and perhaps in that fact may be the solution.

Up to the beginning of the eleventh century we find the majority of fine edifices partake more or less of the religious order. The devotees had most magnificent structures for worship and retirement, but the secular portion of the community, even to the very highest, had been comparatively very poorly housed. As civilization advanced wealth accumulated, and we find palaces for sovereignty and nobility now appearing on a scale of magnificence and immensity not before existing.

Venice at this time had acquired great wealth, and among its people were some of the richest in all Europe; wishing to show evidence of that wealth to the world they built some of the finest public and private buildings in Europe. With practically no foundation and directly in the water itself, they planted immense beds of concrete; on these stone were placed, and the sub-structure gradually brought above the water level; on these piers and walls were erected edifices that today rank among the first. How can we limit our praise of the workmanship when we consider that these buildings are standing today, six centuries since their construction, and in many cases with no signs of settlement and little decay.

An examination of the brickwork of about the fourteenth century will show a marked difference from that of former times. Up to this time walls had been built of either brick or stone, the use of both in the same wall but very rarely employed, and in the brickwork we find a very marked irregularity in the joints, in some places thick, others thin, and all showing an individuality rather than harmony.

From this time, however, we find the brickwork showing a uniformity, and it is evident some regulator has been at work, and although there don't seem to be any positive recorded evidence of it the work speaks for itself, and a line was devised to keep the courses of brick regular, and even at the same time compelling the workman to use a uniform joint.

The reason of this is evident from the fact that we commence to find brick used as a backing to stone, and it was desirable that the joints of the backing should be level with the stone joints, for every here and there we find deeper stone penetrating the full thickness of the wall. We find this at first in districts where good stone was scarce, and a substitute was a necessity; undoubtedly the first to employ did so with distrust, but it proving satisfactory it was frequently employed, and from being an auxiliary it has grown until in some cases it constitutes the major portion of the wall, the stone being nothing more than a veneer to the exterior face, the weight-bearing portion being entirely of brick.

From this time up to the present the progress of masonry as an art has been very slow, the advancement being in the application occasioned by the varied wants of an improved and advanced civilization. The attention being turned more to the interior, for ages the inside of walls had been finished by the stone of the wall itself, and if of brick by a stucco which was painted or hung with tapestry, etc., in some parts wood being used. Plastering as known among us was not generally used until many years later, and then only on the walls, the idea of furring and lathing not coming into existence until comparatively of recent years. Interior partitions not part of the structural formation were not known, the immense apartments being divided by heavy draperies. This brief review shows us one indisputable fact, and it is that the general principles of masonry were as well known two thousand years ago as now, although neglected and not observed for a time, have gradually returned, and we are following in the footsteps of the ancients, except in so far as the wants of the people of another civilization may differ.

Let us now turn to the mechanical and examine the conditions and requirements which must be fulfilled in order to secure strong and lasting results. Masonry is capable of many and varied applications, and when honestly done will rarely fail to meet the most



exacting requirements, but as in everything else, all depends upon the observance of the laws governing its combinations. While it is capable of sustaining a load of many tons to the cubic foot, its maximum strength is only obtained when all the conditions are faithfully carried out. The joints must be thoroughly and carefully filled, and if of brick they must be well wet before laid; even then variations will occur according to the quality of the material employed.

Another important element in the strength of masonry walls is the thickness, and everything else being equal the heavier the wall the greater the crushing strength per cubic foot, one of the principal reasons being that the slower evaporation of the moisture not producing the porosity formed in a thinner wall.

In masonry, as in a chain, its strength is measured by its weakest part, and no matter how strong individually the component parts may be, if they are not put together in such a way as to unite that strength in a body the result will be unsatisfactory. In placing small bodies in such a manner as to form a large mass the great secret of success is the bonding, or that particular arrangement which shall make each particle dependent upon its neighbor in such a way as to make the whole mass act as one body. After the bonding the next most important is the uniting body by which each part is held fast to its neighbor, or in other words, the mortar.

The basis of all mortar used today is lime, and there are two kinds, common and hydraulic or cement. These materials are the result of calcination of rock more or less composed of carbonate of lime, the carbonic acid being driven off by the heat and leaving the lime in the form of an oxide. The rock used for making common lime is generally almost pure carbonate, while that for the hydraulic is what is called argillaceous, that is, less proportion of lime and a percentage of aluminum or clay and silica or quartz. The first, when mixed with sand and water, will harden by exposure to the air, by the evaporation of the water and a chemical change by which the lime becomes a carbonate by absorption of carbonic acid gas from the atmosphere.

In the hydraulic we have a material which will set or harden without the admixture of any other material than water, and will do so either in the air or when surrounded by water. We will take them up in the order I have named. The common lime is made into mortar by first slacking or dissolving it with water, and then mixing with a certain proportion of sand, which will vary with the purpose for which it is to be used. The slacking of the lime is of the greatest importance, and may determine the quality of the mortar. Care should be taken to thoroughly dissolve all the particles, and the more completely this is done the better. No more water should be used than necessary, as any surplus will injure its quality, being so much additional to be evaporated, and leaving the mortar porous and of less strength. The longer the slacked lime can be kept before using, providing air is kept from it, the stronger mortar it will make. The ancients thoroughly understood this quality, as Vicat and other authorities on mortars say that the Romans frequently kept the slacked lime three or four years before using, and their work proves the wisdom of the course. Lime is granular, and when water is brought in contact with it the chemical action is exceedingly rapid, and heat is generated; this turns the water into steam, and particles will surround themselves with air, which acts as a wall against the water, and will remain so for some time; by keeping it, therefore, we more completely dissolve these particles.

Circumstances today, however, will not permit such delay, owing to the rapid manner we are called upon to perform our work. We are compelled to hastily slack, mix our mortar, and use it in the building, and the action that should go on before use now has to take place in the wall itself to a great extent. Next to the slacking, the most important part is mixing with the sand, which should be as gritty or sharp as possible, so as to offer irregularity for the lime to adhere to. For many years it was supposed that the more lime used the better the quality of the mortar, but Vicat, whom I have just spoken of, proves this to be an error. The lime is the uniting body in the mixture, and is not of equal tensile strength to the sand, and all that should be required of it is to thoroughly unite the particles together in a solid mass. The chemical change by which the mortar hardens is the gradual change from the hydrate of lime, which is its condition when it goes in the wall, to a carbonate, which it becomes by the giving off of the water and absorption of carbonic acid gas from the atmosphere. In this form it is a minute crystal, and in the crystallization it adheres most tenaciously to the nearest foreign substance, which is the sand and the material of which the wall is composed, thereby uniting them firmly together.

In the hydraulic limes or cement we have a slightly different condition of affairs. The lime is not pure as in the other; it is mixed with silica and aluminum, and when the water is applied, instead of forming a hydrate it commences to unite with the silicic acid and silicates of lime and aluminum are the result, which rapidly crystallize and become extremely hard in a comparatively short time.

Having seen what the results are of mixing these materials we must not assume, however, that the mere putting of them together will make a good mortar. They must be thoroughly mingled and blended with each other and all the components thoroughly incorporated in the mass so that the crystallization following may be equally great in all parts of the body. I think in many cases where mortars have not proven satisfactory and the quality of the material been questioned, the real difficulty has been an insufficiency of mixture or turning of the bed. We have seen that our bonding is of the highest importance for the securing of stable work, then our uniting material to hold the parts in position, where next should we turn our attention but to the very beginning—to our foundations. If these are of insufficient strength the entire structure is imperiled.

Circumstances, of course, compel various expedients to suit the particular case. If the ground is of a treacherous nature, piling may

be the only thing; but if that is not necessary, I am unqualifiedly in favor of concrete as a base over any other. In this we have a material that we can mold at our will, make it as great or small as desired, a homogeneous mass after setting, and is or should be equally strong in all parts, there being no joints to weaken its resistance. Its formation, however, is not as fully understood as it should be. It is the impression among many that the more cement used, the better the concrete. This is an error precisely the same as that regarding lime in mortar. The cement is, as in the lime mortar, the uniting body only—not the base. The tensile strength of the broken stone and gravel mixed with it is greater than the pure cement, and so as we want the greatest strength possible, we should use sufficient cement to thoroughly unite the stone and gravel in a compact mass only. Mixing is a very important matter, also, and it should at first be done with all the materials perfectly dry; after that is done, add the water and turn over again until no dry particles are to be seen.

After placing in the trench the mass should be tamped thoroughly, to insure solidity and work out the surplus water which will not only retard the setting, but by evaporation leave the mass more or less porous and weakened. If we have protected the structure as far as possible by good bonding, good mortars and good foundations, the exterior has only one enemy, and that is time. The interior, however, has always one ready, and we must prepare for that; it is fire!

How can we best guard against its ravages? Masonry is, we might say, indestructible so far as fire is concerned; that is, it will not burn, and it must be employed as far as possible to protect the weaker parts. In a comparatively few years we have made great advances in this particular line. Hollow clay blocks for floors and partitions are a great advance over the solid brick formerly used, and by lessening the weight have enabled us to erect lighter walls, but there is still too much unnecessary weight, and something still lighter, but fireproof, must be devised. In what direction it will be found I am unable to say, but I am convinced that it will come, and the future will bear fruit in a material for our use that will be far superior to anything now dreamed of.

Let this question be solved, so that our buildings can be made absolutely fireproof—at the same time not unnecessarily massive—and I shall consider that we have arrived at a degree of perfection in masonry not before equaled in the history of the world, and it is a question if we are not in that position today.

In conclusion, let me say that, although it is a very common statement that the works of modern times are and will not be as enduring as those of ancient date, I do not agree with those who make it. The great durability and stability of the works of the ancients is due, first, to their massiveness; second, to their slow and careful construction, in which every part became so thoroughly solidified with its neighbor that at completion the mass was, you might say, a single stone; and thirdly, their equable climate not subjecting them to the expansion and contraction a more rigorous one would entail.

Notwithstanding statements to the contrary by many, I do not believe they had any better materials than we; our mortars and cements are as good as theirs, and the mechanics of today have never had a superior, and should occasion arise, I am confident we can erect monuments that will stand for ages to come, and be an everlasting proof, I might say, that the civilization of the nineteenth century can produce masonry equal to that of any previous period in the history of the world.

### The Metric System.\*

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THE true value of any piece of mechanism depends chiefly upon two things, namely, first, its efficiency to do the work intended to be done in the best possible manner, and secondly, the consumption of the least possible time in the performance of said work; in other words, quality of work and consumption of time are the two all-important factors that enter into the calculation in determining the success of all industrial operations.

Previous to the application of steam and electricity to the development of civilization, international communication and commercial intercourse were so slow and so limited, that the means by which

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quantity and cost of articles of traffic were ascertained, was a matter of secondary importance; but, in this age of steam transportation and electrical communication, when we must do *in a day* an amount of work at which our grandfathers would have been contentedly engaged a month; when a brisk commerce is being carried on with almost every nation of the earth, the mode of making calculations in business, and of representing the most common terms for expressing quantity in language that can be universally understood throughout the civilized world, becomes a matter of most serious concern throughout the whole sphere of commercial and industrial operations, there is not a single piece of work executed that has not, in some way or other, the necessity of the use of some means of measurement connected with it. The grocer must use his weights and measures of capacity in disposing of his sugar, tea and coffee, his molasses, fruits, and vegetables; the dealer in dry goods must use his measures of length in selling his muslins, cloths, silks, and velvets; the physicist and the chemist bring into constant requisition delicate weights and measures in their investigations; manufacturers, builders, and architects have measures and measurements in their minds almost continually; in fact, in all business calculations, quantity, indicated by measures of some kind or other, interposes the greatest obstacle in finding cost.

As there is such a need for weights and measures, in order to render intercourse between man and man possible, it is of the highest importance that the system in use should be the best that can be devised. As weights and measures serve only as a piece of mechanism for ascertaining quantity in some particular phase of business or investigation, unquestionably that system of weights and measures is the best, *per se*, which is best adapted for the easy and rapid calculation of quantities in which are involved lines, surfaces and volumes. The system which supplies these requisites is one in which the basic unit linear measure, or some even division, or some multiple of the same, is taken as the base of the unit for the computation of area, of capacity and of weight, and to facilitate calculation the notation is decimal.

This preface introduces to you my subject entitled "The Metric System," which I propose to treat under the four following general divisions:

- I. The objections to the measures now in use in the United States.
- II. The advantages of the metric system for the use of measurements.
- III. What has been done toward the universal adoption of the system.
- IV. What should we, the citizens of the United States, do to secure its exclusive use at an early date in our country?

Under the first general head I present the five following named objections:

- First.* Entire absence of any linear basis upon which quantities of capacities and of weight can be scientifically computed.
- Second.* Multiplicity of names.
- Third.* Differences of values in units of the same name.
- Fourth.* Irregularity of the notation.
- Fifth.* Dissimilarity to the weights and measures of any other nation.

To anyone acquainted with the metric system, it is evident that one of the most valuable features of a system of weights and measures is a common linear basis from which areas, volumes, capacities and weights may be easily calculated. In the weights and measures now in use, having given the linear dimensions of a volume, there is no connecting commensurable unit by means of which the capacity and the weight may be directly found. The consequence of this in commensurability is the necessity and inconvenience of first calculating from the linear dimensions given, the cubical contents of the capacity or volume and then by a long process of division or multiplication, the capacity or weight is found in the denomination desired.

Secondly, the multiplicity of names used to designate the units found in the various measures, constitute a very objectionable feature. In our best arithmetics there are not less than twenty different names given to units of length alone, ten to units of surface, seven to units of solidity, fifteen to units of capacity, ten to units of weight, making sixty-two arbitrary names of units to designate measurements of lines, areas, volumes, capacities and weights alone. Such a diversified, meaningless, heterogeneous nomenclature as is found in naming the units used in our tables of weights and measures is enough to discourage any ordinary student in the hope of ever mastering them, and to cause the master acting teacher to feel justified in excusing his pupils from a thorough knowledge of the tables and of their relations to one another.

The third objection that I offer to our weights and measures is that several of the units bearing the same name do not represent the same quantity. Let us first turn our attention to the weights. There are, in practical use, in our country today, four different sets of weights, namely, the troy, the apothecaries, the avoirdupois and the diamond.

The unit, by which the values of the weights of the other denominations are compared, is the troy-grain. Of the denominations of weights the values of whose units differ, I mention the ounce, the pound, the hundred-weight and the ton. The troy ounce contains 480 grains and the avoirdupois ounce,  $437\frac{1}{2}$  grains. There are 12 ounces in a pound troy, and 16 ounces in a pound avoirdupois. By multiplying 480 grains by 12 we obtain 5,760 grains, in the troy pound, and by multiplying  $437\frac{1}{2}$  grains by 16 we obtain 7,000 grains in the avoirdupois pound; thus results the peculiar fact that an ounce of gold weighs  $42\frac{1}{2}$  grains more than an ounce of feathers, but that a pound of feathers weighs 1,240 grains more than a pound of gold. The ordinary hundred-weight contains 100 pounds avoirdupois, yet there is another hundred-weight used in certain

specified cases which contains 112 pounds, and the two tons (each having in it 20 hundred-weight of its own kind) bear the same ratio to each other as the hundred-weights.

The coal dealer within the city limits of Philadelphia is required to furnish 2,240 pounds to the ton, while the dealer just beyond the city limits supplies his customer with 2,000 pounds to the ton.

Let us now consider for a few moments the irregularities in the units of capacities having the same name. The measures of capacity known under the respective names of wine, ale or milk, and dry, have each three denominations, the pint, the quart, and the gallon, of the same name, yet no two of these measures of the same name contain the same capacity. Taking the cubic inch as the unit of comparison, the wine gallon contains 231 cubic inches; the ale or milk, 282 cubic inches, and the dry, 268.8 cubic inches; and dividing these numbers respectively by 4 and then by 2, we obtain the proportionate number of cubic inches for the quart and pint of each of the measures. In the absence of any legal provision requiring the testing and the sealing of weights and measures, a man needs but little knowledge of the tricks of trade to see the opportunities for practicing deceit upon the unwary customer. In fact this diversity of capacity of units of the same name, and the appropriation of special titles to certain measures, open the way to an unconcealed injustice to a large class of producers of one of our most important daily necessities. I refer to the dairymen who reside along the lines of railroad communication with the city of Philadelphia. When the milk dealer of this city contracts with the dairyman for the milk, he demands as his rights that he shall receive as a quart the milk quart of  $70\frac{1}{2}$  cubic inches; then follows a mode of measurement, which makes the transaction as unjust, for after the milk has been brought to the city the consumer is not allowed the privilege of buying the article as *milk* or ale, but it has been so changed that, so far as measurement is concerned, it is dealt out as wine, or  $57\frac{3}{4}$  cubic inches to the quart.

The fourth objection which I bring to your notice, is the irregularity of notation. This is exhibited in its perfection in the tables of the linear and surface measures, in the former of which the factors in reductions are 12, 3,  $5\frac{1}{2}$  and 320, and in the latter, 144, 9,  $30\frac{1}{4}$ , 160 and 640. In fact, this irregularity of notation, combined with the diversified variety of the tables of weights and measures, constitutes, in an educational point of view, the most forcible objection to them.

The difficulty of learning such a mass of arbitrary names, and of remembering so many irregular uncorrelated numbers, is so great, that it takes months to acquire them, and constant reviews to retain them, and the necessity of subjecting the young to so much practice in order to secure proficiency in the performance of the various forms of reduction and a readiness in the manipulations of compound numbers, so multiplies the time and work in arithmetical instruction in the schoolroom that arithmetic must be taught continuously throughout a school course of seven or eight years, while, if the metric system were as thoroughly established in the place of our weights and measures as the use of our system of money is, all necessary practical arithmetic could be taught in a few months, and from *one to two years'* time would be saved in a boy's school life, and a great amount of mental vigor now wasted in solving the intricacies of compound numbers could be devoted to the more pleasant occupation of investigating some useful science or of enjoying the beauties of classics.

In considering my fifth and final objection I wish to correct a common mistake. Most people think that our measures and those of England are identical. Such is not the fact. While their names are the same their values differ widely. As England is the only country which, it is claimed, has weights and measures similar to ours, if I prove that these are unlike, my objection must be accepted as valid. Let us compare the values of some of the measures used in the two countries. Taking the "Encyclopædia Britannica" as authority, the United States inch = 1.000049 British inches. The United States wine gallon = .83 British gallon, containing 277.27 cubic inches, which is used for all substances, both dry and liquid, and which is one-eighth of the imperial bushel of 2218.19 cubic inches.

Our bushel contains 2,150.42 cubic inches, hence the United States bushel = .97 British bushels; or, putting these statements in a different form, 83 British gallons = 100 United States gallons, and 97 British bushels = 100 United States bushels. The British hundred-weight on a ton are 12 per cent heavier than weights of the same name in our country. The British gallon, quart and pint do not correspond with those of any one of our three measures. They are 20 per cent greater than those of our wine measure, 3 per cent greater than those of our dry measure, and 1.6 per cent less than those of our ale measure.

No further argument is needed to show that our weights and measures are unlike those of any other country, and it seems to me that their objectionable features have been portrayed in such a light that every earnest advocate of progress and reform should be ready to cry out, "Cannot something more convenient be found to be substituted for these irrational cumbersome weights and measures?" I can assure you it can. It has already been found. It is not new. It has so popularized itself by its own intrinsic merits, that it is destined not many years hence to be the universal means for the computation of all measurements. This great invention is the metric system, which I now proceed to explain.

The metric system stands in the strongest contrast to the weights and measures in general use in our country. Its conception was the result of an earnest desire to establish for the whole civilized world a uniform, permanent and universal system of weights and measures.

In examining the second general division of my subject, namely: "The advantages of the metric system for the uses of measurements," I shall strive to show these advantages prominently consist:

- I.—In the foundation of the system upon an invariable standard linear measure as a basis.



II.—In the facility in which the units of surface, capacity, solidity and weight are derived from this linear basis.

III.—In the uniformity, the significance and the simplicity of the nomenclature.

IV.—In having only one table of linear measure, one of capacity, and one of weight.

V.—In the application of decimal notation to all divisions and multiples of the basic units of weights and measures.

The metric system of weights and measures is so named because the fundamental linear base for the calculation of all the denominations of measures is the *meter*. The word *meter* etymologically considered means in the various southern European languages a *measure*, hence it is an appropriate name to give to that measure which stands as the invariable standard linear unit upon which all other measures of whatsoever kind, are to be dependent, and the system based upon it is as appropriately entitled the "Metric System."

The fixed length of this *meter* was obtained from a most careful computation of the length of the distance from the equator of the earth to the north pole along the meridian passing through the city of Paris. During the last decade of the eighteenth century that feat of geodesy, which furnishes the basis of the metric system, was accomplished by the ablest mathematical talent obtainable at that time. The length of the said distance having been determined, in order to obtain from it a convenient measure as a basis for practical use, it was divided into 10,000,000 equal parts; hence, the *meter* is a ten-millionth part of the distance from the equator to the poles, or a forty-millionth part of the polar circumference of the earth. The source from which this unit of measurement was taken suggests that it is as invariable and permanent as the earth itself.

Having described the base upon which the foundation of the metric system rests, I will explain the manner in which the units of the other measures are obtained, and show how each is dependent upon some decimal division or decimal multiple of this fundamental linear base, the meter.

The unit for surface is the *are*, which is represented by a square whose side is 10 *meters*; the unit for capacity is the *liter*, which is a cube whose rectangular linear measurements are one-tenth of a meter, the unit for solidity is the *stere*, which is a cubic meter; and the unit for weight is the *gram*, which is the weight of a cube of distilled water, whose side is the hundredth part of a meter.

A slight examination of the relations mentioned above will reveal the readiness by which the quantity of surface, capacity, solidity or weight may be found when the linear dimensions of quantities are given. That is, that area in square tens of meters equals the number of areas; capacity in cubic tenths of a meter equals the number of liters; solidity in cubic meter equals the number of steres; and volume in cubic hundredths of a meter equals the number of grams of water, and to find the weight of any substance, all that is necessary is to find its contents in cubic hundredths of a meter and multiply by its gravity, and the product is the weight of the substance in grams. I now ask your attention to the uniformity, significance, and simplicity of the nomenclature of this system.

Each of the above named units has its decimal divisions and decimal multiples, the value of which are indicated by uniform and significant prefixes, placed before the names of the units of the measures of the different kinds of quantity. The prefixes denoting the decimal divisions, beginning with the smallest, are milli, meaning a thousandth; centi meaning a tenth.

No American, certainly, should find fault with these, for, besides their simplicity in representing divisions on the basic units of quantities to the thousandth part, they are already familiar to us in the use of the money of the United States in the terms mills, cents and dimes, which are employed to represent the thousandth, the hundredth and the tenth part of the unit of our money, the dollar.

The prefixes denoting the decimal multiples are, deka, meaning ten; hekto, meaning hundredth; and kilo, meaning thousand.

All the denominations of measures of length, surface, capacity, solidity and weight can be represented by the fine units and these six prefixes, with the additional term *ton*, so that only twelve separate names are required, which exhibits a wonderful simplicity of nomenclature when compared with the names of the measures now used, since the names of units of length alone are nearly double this number. In practice it is not always found necessary to use all of these prefixes to indicate divisions and multiples. Thus, in computing area of land it is useless to have a denomination less than certiare or greater than hektare, hence the tables of measures are arranged in decimal uniformity, but only such divisions and multiples are introduced as are required in practical computations. The only tables of weights and measures absolutely needed are five in number, and they may be stated as follows:

MEASURES OF LENGTH.	
A Millimeter=.001 of a meter.	A Centimeter=.01 of a meter.
A Decimeter=.1 of a meter.	A Meter is the unit of length.
A Dekameter=10 meters.	A Hektometer=100 meters.
A Kilometer=1000 meters.	
MEASURES OF SURFACE.	
A Certiare=.01 of an are.	A Dekare=.01 of an are.
The <i>are</i> is the unit of area.	A Dekare=10 ares.
A Hektare=100 ares.	
MEASURES OF SOLIDITY.	
A Millistere=.001 of a stere.	A Centistere=.01 of a stere.
The Stere is the unit of solidity.	

As the above classification indicates only one table for each kind of quantity used, which is far preferable to the measures now in vogue,

which, as I have already stated, have four different tables of length, three of capacity and four of weight, the fifth and last superior feature of the metric system to which I will refer is the calculable advantage of a decimal notation. When treating of the objections to the measures now in use, I showed what laborious work was required in making reductions therein. Reductions in metric calculation, on the other hand, are effected by merely moving the decimal point or prefixing or affixing ciphers; for instance, in reducing measures of length from the lowest to the highest denominations in the two systems, that is, to change inches to miles, it is necessary to divide successively by 1, 2, 3, 5½ and 320, while to reduce millimeters, the unit of which is only about 1/25 of an inch in length, to kilometers, the unit of which is a little more than .6 of a mile, and is used in the metric system to indicate such distances as we represent by the mile, all that is required is to move the decimal point six places to the left. While the ease with which this latter reduction is made is sufficient to show the great superiority of the decimal notation, it is not the only advantage of the metric system of lengths over our linear measure, for the ratio in the difference of length between the millimeter and the kilometer is 1478 per cent greater than the difference in length between the inch and the mile; the mile containing 63,360 inches while the kilometer contains 1,000,000 millimeters. As previously stated, the system of measures already explained furnishes means for the measurement of all commodities of traffic, but in practice it is found, in manipulating with small quantities, as the chemist and the druggist are continually required to do, that tables of surface and cubic measures composed of the squares and cubes of linear denominations are more convenient for use than those in which the *are* and *stere* are the respective units. Here again, the advantage of a decimal notation is forcibly shown. As the square millimeter is an almost inappreciable quantity, it being the .001 square centimeter (show surface) and square millimeters are hundredths of square centimeters, the table of surface measure commences with square centimeters, and is written as follows:

100 square centimeters	1 square dekameter.
100 square dekameters	1 square millimeter.
100 square millimeters	1 square dekameter.

As this is a table for areas, and as similar areas are to each other as the squares of their like linear dimensions, the number of units in each preceding denomination is the square of 10 or 100 times the number of units in the succeeding one.

As cubic millimeters are so small, each being the .001 of a cubic centimeter, and their value is indicated in thousandths of a cubic centimeter, the table of cubic measure is thus written:

1,000 cubic centimeters	1 cubic dekameter.
1,000 cubic dekameters	1 cubic millimeter.

As similar capacities and solids are to each other as the cubes of their like linear dimensions, the number of units in each preceding denomination is the cube of ten or one thousand times the number of units in the succeeding one. The reductions by these tables are made with as great facility as by the tables in which the progression is by the simply decimal notation.

In square measure the progression from one denomination to the next higher is by the square of the decimal or the centesimal notation, and hence to change square centimeters to square decimeters the quantity must be divided by one hundred, which is done by moving the decimal point two places to the left. In like manner in cubic measure the progression is by the cube of the decimal or the millesimal notation, and to change any cubic denomination to a higher or lower denomination the division or multiplier must be one thousand, or the decimal point must be moved three places for a change to each successive denomination.

There is also an incidental advantage connected with the practical use of the metric system, which is so important that I desire to present it with double emphasis.

This is the fruitfulness of the system in furnishing smaller and larger easily convertible and suitable units of measurements for every conceivable kind of industry. As units of length suited to each particular purpose, and being either the standard base of linear measure itself or some decimal division or decimal multiple of the same, we have the meter for the manufacturer of textile fabrics, the dry-goods merchant and the builder; the decimeter for the horse-jockey; the centimeter for the manufacturer of all kinds of culinary utensils, the shoemaker, the tailor, the brickmaker, the plumber, the mechanical engineer, the architect, and the worker in metals; the millimeter for the physicist in making his delicate calculations; the dekameter for the surveyor and the civil engineer, and the kilometer for the itinerary. The series of weights used in the metric system also furnishes a suitable unit for weighing every article which must be handled in any business or profession. The gram is the most appropriate unit imaginable for the use of the chemist and the druggist; the kilogram is especially adapted to trade in articles of ordinary daily consumption, and the ton of 1,000 kilograms meets the demands of dealers in coal, iron and other gross commodities.

The other measures are no less prolific sources for furnishing fitting units for different purposes, but enough has been said to show the wonderful adaptability of the metric system to the uses of mankind.

I have already so nearly consumed the time allotted to me in considering the constitution of the two systems of weights and measures that I shall have to present what I have to say under the two heads yet to be treated in the most condensed form.

In the first place a verified standard meter, made of an invariable and indestructible alloy of platinum and iridium, is so securely preserved that its destruction is beyond present human possibility.

In the second place an International Metrological Bureau, composed of representatives from each of the nations adopting the metric



system, has the custody of this prototype meter, and directs the manufacture of attested copies of said meter, to be supplied to all nations and associations which may wish them, so that accuracy and uniformity in all measures distributed throughout the world are secured.

Having stated that a verified standard meter is in safe-deposit and that the production of authenticated copies thereof is provided for, let us see with what favor this metric system has met at the hands of civilized nations.

By government authority the use of the metric system is now obligatory in the following named countries:

In Europe—Austro-Hungary, Belgium, France, Germany, Greece, Italy, The Netherlands, Norway, Portugal, Roumania, Spain, Sweden, Switzerland, Turkey. In Asia, British India. In Africa—Egypt and the French Colonies. In America—Argentine Confederation, Brazil, Chili, Equador, Guatamala, Mexico, Peru, United States of Colombia, Uruguay and Venezuela.

In England there is a strong sentiment in its favor among men of more advanced thought; in fact, in 1863 a bill passed the house of commons by a large majority, making the metric system compulsory after three years, but the bill was not approved by the house of lords. However, in 1864 a bill was passed by both houses legalizing the system, but not making its use obligatory. There yet remains to be mentioned the steps taken toward the final adoption of the metric system in our own country.

For more than twenty years congress has shown a disposition to meet the people more than half way in this good work, both by legalizing the system and by providing the several states with sets of standard metric weights and measures.

The following is the text of a law approved July 28, 1866:

"Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That from and after the passage of this act it shall be lawful throughout the United States of America to employ the weights and measures of the metric system, and no contract shall be deemed invalid or liable to objection because the weights and measures expressed or referred to therein are weights or measures of the metric system."

And the following act was approved July 27, 1866:

"Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized and directed to furnish to each state, to be delivered to the governor thereof, one set of the standard weights and measures of the metric system for the use of the states respectively."

The possibility of the convenience now experienced in the operations of the "General Postal Union," which was formed at Berne, Switzerland, in 1874, by a congress composed of representatives from all the countries of Europe (including even Russia), Egypt and the United States, is an outcome of the metric system.

As a result of the formation of this "Postal Union" the following act was passed by congress and approved June 22, 1874, namely:

"The Postmaster-General shall furnish to the postoffices exchanging mails with foreign countries, and to such other offices as he may deem expedient, postal balances denominated in grams of the metric system, fifteen grams of which shall be the equivalent for postal purposes, of one-half ounce avoirdupois, and so on in progression."

All foreign mail matter is weighed in accordance with the provisions of this act.

Every time that we pass a nickel or a fractional silver coin we are handling a practical illustration of the metric system. Our 5-cent piece is two millimeters thick, two centimeters in diameter and it weighs five grams. Our fractional silver coins represent metric weights also. Although the \$1 piece retains the old weight of 412½ grains, the fractional pieces are proportional divisions of an imaginary dollar of 25 grams weight; hence, the 50-cent piece weighs 125 decigrams; the 25-cent piece, 675 centigrams, and the 10-cent piece, 25 decigrams. Besides these statutory provisions by congress, the metric system has been put into practical use in some of the departments of public service. Since 1878, the metric system has been in exclusive use in the United States Marine Hospital Service.

The meter has been used in the operations of the coast surveyor ever since the organization of the service.

As all scientific treatises written in Continental Europe have the results of investigations stated in the metric system, and because measurements used in making scientific investigations in our country are very extensively metric, for several years past all the colleges of our country have made a knowledge of the metric system a requisite for admission.

Recently many industrial and scientific associations of our country have become interested in metrological reform. The Western Association of Architects and the Boston Society of Civil Engineers deserve especial mention in this commendable work, the former of which, at a convention held in Chicago, November 19, 1886, adopted the following resolution:

"Resolved, That this association recommend the adoption of the metric system of weights and measures, and that the president appoint a committee whose duty it shall be to correspond with other organizations interested in this subject, and, in connection with them, petition congress to pass a law making the use of the metric system compulsory after a reasonable period."

In closing the third general division of my subject, let me recapitulate a few of the most important facts that we have learned.

In the first place we learn that we are using a complex, irrational, heterogeneous lot of measures, such as no other nation in the whole world employs.

In the second place, we learn that we have at hand as an admirable substitute for these inconvenient measures, a simple, scientific,

homogeneous system of measures known by the name of the metric system.

In the third place, we learn that almost all the civilized governments of the earth, both republican and monarchical have compelled their subjects to use this system in legal transactions.

In the fourth place, we learn that the government of the United States, the high educational institutions, and the advocates of the advancement of social science have been opening the way for the exclusive use of the system in our own country.

In the fifth place, we learn that as a people we are sadly behind the age in metrological reform.

In the face of this array of incontestable evidence, both foreign and domestic, in favor of the metric system, the question presents itself to us, what should we, the people of the United States do, in order to secure to ourselves the blessings that would accrue from the exclusive use of the metric system in all business transactions.

It seems to me that the course that should be pursued by every intelligent citizen is very plain. He should devote a little time to the study of this simple and incomparably superior system of weights and measures. It would not require more than an hour to learn and to understand thoroughly the whole system, and if anyone is ignorant of the fact, I will state for his information, that, through the influence of the American Metrological Society, every grammar school or higher arithmetic published within the last ten years has in it the tables of the metric system, with all necessary explanations. They occupy so little space in the books that most teachers, being entirely ignorant of their great value, and ignoring the fact that frequently the most precious articles come in small packages, pass them by unnoticed.

The constitution of the United States makes special provision for this very emergency in Article I, Section VIII, clause 5, in these words:

"Congress shall have power to coin money, regulate the value thereof, and of foreign coin, and to fix the standard of weights and measures." And in the clause 18 of the same section "Congress is empowered to make all laws which shall be necessary and proper for carrying into execution the foregoing powers."

These are merely general suggestions. As I am a man who believes in definite declarations and specific proposals, I would have laws enacted making the exclusive use of the metric system obligatory in all kinds of government service after January 1, 1895, and in all transactions between citizens of the United States, after January 1, 1900.

This length of time is abundant to educate the people for the change. Let congress pass the obligatory act as soon as possible, then let the President of the United States transmit to the governors of the states copies of the enacted law, with an earnest recommendation that the governors urge upon the various legislatures of the different states the necessity of providing means for proper instruction in the metric system in every school in the country.

The education of both the rising generation and adult members of the community could be accomplished at very little additional expense to each school district by furnishing for each school building a plain set of metric apparatus, by providing for immediate instruction in the system, and by prohibiting after June, 1895, instruction in any other than the metric system of weights and measures. All this accomplished, a new era would be inaugurated. New joys would be added to school life; both teacher and pupil would be greatly relieved. The mathematics of business, trades, and professions would be reduced to the minimum; international commerce would receive a strong impetus; every national, industrial, social, and personal interest would be highly promoted, all because a lot of complex, irrational, and heterogeneous weights and measures has been sunk into eternal oblivion by the substitution of the simple, scientific and homogeneous metric system.

### European Competitions.

M. R. H. MAACK, principal of the Academy of Architecture and Building in St. Louis, reports the following European competitions:

Plans are wanted for a theater to cost \$100,000; three prizes offered: *a*, first prize, \$700; *b*, second prize, \$500; *c*, third prize, \$250. The right is reserved to select suitable plans for the sum of \$150 from those rejected.

As judges will act: 1. Baurath (Council of Building) Boeckmann from Berlin; 2. Baumeister v. d. Hude, from Berlin; 3. Government Inspector of Theaters Anno, from Berlin; 4. Government Inspector of Theaters Brandt, from Berlin; 5. Engineer Wippermann, from Essen; 6. City Building Commissioner Wiebe, from Essen; 7. City Mayor Zweigert, from Essen.

Competition will be closed March 31, 1889, 8 P.M. Details may be had free of cost from Herrn Oberbürgermeister Zweigert, Essen, Germany.

The division "Nederlandsch-Indië" of the Dutch Institute of Engineers to Batavia, offers besides a diploma, a prize of \$200, for the best essay, to be a practical guide for the appliance of hygiene (science of health) to buildings in Dutch East India. Two hundred dollars are added to the above from the "Vereeniging tot bevordering der geneeskundige wetenschappen in Nederlandsch-Indië."

The essay is open to all nations; it may be written in Dutch, English, German or French. Closed October 1, 1889. Details may be obtained from L. J. Resner, president, or J. Frenkel, secretary.

A prize of \$5,000 is offered in Germany for the best work on "Heat going through bodies," depending on the material, form, and situation, velocity of heat in air, etc. For details address Dr. Hans Bunte, Professor an der Technischen Hochschule in Karlsruhe, or J. Einbeck, Obergeringieur in Stuttgart, or on der engere Vorstand des Vereins deutscher Ingenieure, Berlin.



## Proceedings of the Third Annual Convention of the National Association of Builders.

COMPILED FROM THE OFFICIAL STENOGRAPHICAL REPORT.

### FIRST DAY—MORNING SESSION.



THE third annual convention of the National Association of Builders was called to order at 10 o'clock Tuesday morning, February 12, 1889, in Franklin Institute Hall, Philadelphia, Pa., John S. Stevens, of Philadelphia, president, in the chair.

The session was opened with prayer by Rev. John Peddie, D.D.

The president introduced the Hon. Edwin H. Fitler, mayor of the city of Philadelphia, who spoke as follows:

Mr. President,—I have a pleasant duty delegated to me, and that is, as chief magistrate, to welcome to our City of Brotherly Love the members of the National Builders' Association of the United States, and to tender to them the hospitalities of our citizens. If centuries of time add honor to a trade, then yours is an honorable one. While the product of other trades has fallen and crumbled in the dust, that of yours has resisted the rot and the rust of ages, for there is still left upon the face of mother earth the handiwork of your ancient predecessors. This annual gathering of your clans for the mutual exchange of thoughts and ideas is bearing its fruits, for you are keeping pace with the progress and march of improvements. The combustible building is giving way to the incombustible, in order to resist the destructive element, fire. The severely plain structure is being re-

placed by one of sculptured, graceful outline. Iron and steel and terra-cotta have become factors in construction, and all this is verified by the magnificent edifices that are now rearing upward their beautiful proportions under the skillful hands of the builders of Philadelphia. To me it seems that the great International Exhibition of 1876 was a revelation, and I date the revival in this city, in the decoration of our homes, in adding to our comforts and conveniences, and in the improvement in the style and beauty of our architecture, to that great event. Formerly we were satisfied with a plain and unpretentious building, but now the skill of the architect, of the builder, and of the workman is taxed to its utmost to produce designs and results that will satisfy the advanced ideas of the people, and the day is not far distant when all structures will be erected with a view that the building shall protect its inmates, and not that the inmates shall protect the building. I again, gentlemen, tender you a most hearty welcome, and, in closing, will say that there is plenty of room at the top of the ladder.

President John S. Stevens arose and delivered his annual address, as follows:

#### THE PRESIDENT'S ADDRESS.

GENTLEMEN OF THE CONVENTION,—On this, the third annual gathering of the National Association of Builders of the United States, it becomes my pleasant duty to bid you welcome to the hospitalities of the Master Builders' Exchange of Philadelphia.

Our honored mayor, in his eloquent address, has tendered you the freedom of our city and the cordial good wishes of its citizens. We all feel highly honored that so distinguished and influential a body has chosen this city for its place of meeting, and it will give us much pleasure to minister to your comfort and entertainment while you sojourn with us. Much of our time and attention must, of necessity, be given to the consideration of matters of great importance that will come before us for action, still we hope to have some little time for enjoyment.

It is not necessary for me to reiterate the objects that influenced the formation of the National Association of Builders, or the causes that led thereto. These have been fully stated by my predecessors in office in their opening addresses at the former conventions; but I may be excused if I emphasize the thought that guided and influenced the originators, to wit: The establishment of uniformity and harmony of action, upon general principles, in all matters that directly affect the interests of contractors, manual workmen and all concerned in the erection and construction of buildings throughout the United States.

The most important question with us, at this time, is what has been accomplished in this direction?

To answer this query I will briefly refer to some of the subjects that have been considered by this body and the action thereon.

First, the "Uniform Contract." The report of the committee will doubtless give you all of the particulars, but I may be pardoned for saying here that while we do not claim to have made a "perfect contract," yet this one is far in advance of any that has been used heretofore in establishing equitably the duties and responsibilities of owners, architects and contractors. It is today largely in use throughout the United States in the offices of many leading architects.

Then, again, the intelligent discussions on the "Lien Law," on the preparation of a plan for "Permanent Arbitration," "Uniformity in Measurement," "Uniform Size of Brick," "Insurance Against Accidents to the Public," "The Apprenticeship System," etc.

Has anything been accomplished? I think you will all answer affirmatively. As regards the views expressed by the National Association on the apprenticeship system at its first convention at Chicago, and again at Cincinnati last year, they seem to have taken hold of the public and been adopted by them. The press of the country has, in many leading editorials, discussed the subject and is

busy molding public opinion. Already steps have been taken that look toward the early establishment of trade schools, and some of our public-spirited citizens are devoting their means in support of such enterprises. Notably among these I may be permitted to name Col. R. T. Auchmuty, who, not satisfied with the good accomplished by his New York trade schools, which were established and are supported by him, but has offered to the Builders' Exchanges of Boston and Philadelphia a very large sum of money toward the establishment of such trade schools under the auspices of the exchanges in these cities.

You have all heard of the princely gift of Philadelphia's honored philanthropist, Isaiah V. Williamson, who, with his millions, proposes to found a mechanical trade school, which, under the wise management of an efficient board of trustees, will accomplish a work that will join the name of Williamson with that of Stephen Girard as a benefactor of American youth.

We are assured that we see here the beginning of a new era, fraught with beneficial results to the nation at large that cannot be fully estimated.

We hope, through the efforts of these schools and the widespread influence of the public press, as well as by our individual effort, to encourage the American youth to see and understand the "nobility of labor." To make them feel that it is more honorable to be a good mechanic, earning good wages, than to be a poor bookkeeper or clerk, on a mere pittance.

In a pamphlet written by Mr. J. Hampton Moore, in reply to Henry George's address on free trade, he forcibly says: "The American youth is keen to seize upon the golden opportunity; American fathers are proud of their sons, and the tendency is to train them to be professional men. You don't want your boy to be a laborer; you want to make a lawyer of him. Another father turns his boy's attention to the ministry, and still another to medicine. In fact, anything is selected that will save him from the drudgery of mechanical or other laborious work. The effect of all this is bad; there is not room in the professions for all, and many become the satellites of capital, or fall by the wayside. Why is all this? Because the inducement to learn a trade or do manual work is not sufficient. The father may have managed to work at a trade himself, and sustained his family, but he wants something more remunerative for his boy. This is natural; but seeing that the professions were overcrowded, and that carpentry would pay better than medicine, young America would not hesitate to take the best paying situation. I am free to say I would rather be a bricklayer at \$5 a day than a lawyer or government clerk at \$2."

Gentlemen, we look for the time to come when we are to be no longer dependent on foreign labor in the erection of our buildings. The "birds of passage," as I have heard them called, who come here in the spring of the year, and return to their own country in the fall, taking with them our American money, upon which to live in comparative idleness during the winter months, leaving behind them too often the seeds of anarchy, atheism and communism in exchange therefor.

I am pleased to know that many of the leading workmen regard the establishment of trade schools with favor. Some time since I read the opinion of many of them, as published in the *Press* of this city, and I take the liberty of quoting one of them, which has no uncertain sound:

Andrew Magill, president of the Journeymen Bricklayers' Protective Association, was of the opinion that the school will not have the least effect on the wages of the mechanics in this or any other city. "What this city needs," said he, "is a class of mechanics who are versed in all branches of the trade. We have not many such now, and we can only expect to get them from schools where all the branches of the trade are taught. No mechanic should look on this school as a menace to his interests, as it will advance rather than cause a decrease of their wages. Philadelphia and all the big cities can well afford to have any quantity of young mechanics in them such as this school will turn out. It will keep out the cheap labor of Europe, and make the work and all the surroundings more pleasant. None of the bricklayers in this city need feel worried about their position."

Let us then, gentlemen of the convention, encourage and aid in the establishment of trade schools, and it will not be long before we shall have American mechanics to build with American materials our American buildings.

Our honored secretary, in his report, will doubtless tell us of much that has been done during the year; of meetings arranged for and successfully carried out, that have resulted in the formation of new exchanges, reorganization of defective ones, and the infusion of new life into some that were already established. Early in the year a visit was made to Rochester and Syracuse. The president was accompanied by Secretary Sayward, Vice-President Tucker and Brother Edlitz, Chairman of our Legislative Committee. Their well-timed remarks and eloquent appeals did much to make our visit to these exchanges pleasant and profitable. We spent a short time at Albany sowing seed, that we trust may yet result in good to the builders of that city and the National Association.

On another occasion visits were made to the exchanges in Buffalo, Cleveland, Cincinnati, Pittsburgh, Wilmington, Del., and Newark, N. J., with, as we trust, profitable results.

Enough has been said, and I have detained you too long. We will now enter upon the business of our third annual convention. The work before us is of great importance, and I feel assured it will receive, as it well deserves, careful consideration at your hands.

Secretary William H. Sayward announced as assistant secretaries William Harkness, Jr., of Philadelphia; Charles W. Voshall, of Rochester, New York, and M. E. Kavanaugh, of Cleveland.

On motion of A. McAllister, of Cleveland, a committee of five on credentials, to which was added the secretary, was appointed by the president. This committee included A. McAllister, of Cleveland, Ohio; William P. Jungclaus, of Indianapolis; M. Breen, of St. Paul; A. W. Kelly, of Worcester, and D. V. Purinton, of Chicago.

After the reading of invitations to visit points of interest, and general amendments, on motion, the convention took a recess until 2 o'clock P.M.

### FIRST DAY—AFTERNOON SESSION.

President Stevens called the convention to order at 2 P.M. In response to the call of the president for the presentation of the report of the Committee on Credentials, Assistant Secretary Voshall stated as follows:

The Committee on Credentials beg leave to report that there are one hundred and fifty-eight (158) delegates and alternates represented.

Your committee recommend that alternates and visitors be entitled to seats in the convention, but to have no voice or vote only in the absence of a delegate.

On motion, the report of the Committee on Credentials was accepted and ordered to be printed as part of the minutes.

On motion, the reading of the minutes was dispensed with, and the next business in order being the presentation of resolutions, the president stated that the resolutions as presented would be read and without debate referred to the Committee on Resolutions appointed last year: A. McAllister, of Cleveland, Ohio; William Taylor, of Kansas City, Mo., and D. J. Macarty, of Washington, D. C. The president further stated that in case of any vacancy in said committee, caused by absence or otherwise, the committee have the authority to fill the same.

The following resolutions were then presented and read:

Mr. John Grace presented the following resolution from the Cincinnati Builders' Exchange:

January 23, 1889.

Resolved, That the delegates to the National Convention be requested to bring the matter of government contracts before that body and request them to call the



attention of the authorities at Washington, and endeavor to have them let the government work, the different branches, separate.

George W. Roydhouse presented the following resolutions from the Philadelphia Master Builders' Exchange :

*Resolved*, That inasmuch as all builders have to secure special insurance on a building in process of erection, under what is known as "builder's risk," it would be advisable to establish a fire insurance company, under the special patronage of the National Association, for the purpose of insuring all such, as well as other risks; and in consideration of such patronage, the national body or local associations to receive a percentage of the profits arising therefrom, if practicable.

*Resolved*, That the matter be referred to a committee of seven, including the president of this body, Mr. John S. Stevens, to take into consideration the advisability of the organization of such a company, with full power to act, without any expense or liability to this body, or any local associations.

William Taylor presented the following resolution from the Kansas City Builders' and Traders' Exchange :

*Resolved*, That it is regarded by the National Association of Builders as unbusiness-like conduct and worthy of public censure for any contractor who is a member of a filial body of this association and doing business outside of the city in which he resides not to work in accordance with the established rules and principles of the local association in which the work is being executed; provided, however, that said rules and principles do not work an injury to the contractor by such work.

George F. Neiber presented the following resolution from the Cincinnati Exchange :

*Resolved*, That the thanks of this association be tendered to the Honorable Benjamin Butterworth for his manly defense in Congress of the United States of the rights of American citizens.

On motion, the above resolutions were referred to the Committee on Resolutions.

J. M. Blair, Cincinnati : Mr. President, I have a subject that does not perhaps come under the head of resolutions, or reports on resolutions, but if I can have the attention of yourself and the convention, I would like to read what I have here. It is a matter referring to a suit at law in the city of Cincinnati, wherein a firm of contractors entered suit against the Journeyman Bricklayers' Union No. 1 of Ohio, upon which they obtained a judgment for damages to the amount of \$3,700. It is a matter of the greatest vital importance to every member of the National Association of Builders.

The president asked the convention whether it was the pleasure of the members that Mr. Blair should read the report of the case to which he referred. It was so ordered.

After the reading of the document, which was listened to with great attention, the document read by Mr. Blair was ordered printed in the proceedings.

The President : The thanks of the meeting are due to Brother Blair for the paper he has read, as it contains matter of great importance to all of us; but I think that the arbitration committee of the Philadelphia Exchange could have stated all that the honored judge has in many less words. It might not have been quite as legal, but probably would have contained as much common sense.

George C. Prussing, Chicago, Ill. : Mr. President, before reading the resolution passed, I will state to the convention that the annual meeting of the Chicago Builders' and Traders' Exchange

*Resolved*, That this Exchange urge upon the National Association the necessity of exerting its influence in the direction of changing the obligation of bonds required for the faithful performance of work on public buildings so as to protect all claims for work rendered, or material furnished, in the execution of such contracts.

In pursuance of that resolution, the following is hereby introduced by the Chicago delegation :

WHEREAS, Bonds are required of contractors for public works by the government of the United States, the governments of the various states, county boards, city and village authorities, conditioned upon the faithful performance of the work according to plans and specifications by the contractor; and

WHEREAS, Instances multiply in which the work is satisfactorily completed, but sub-contractors are defrauded out of their just dues for labor and materials furnished, and for which no liens will lie, inasmuch as no liens are possible on public buildings; and

WHEREAS, A remedy may be found by requiring a bond of contractors in sum sufficient to cover all possible liability and conditioned upon the faithful performance of the work, and the discharge and satisfaction of all just claims for materials and labor furnished in the execution of such contract; now, therefore, be it

*Resolved*, That the executive officers of the National Association of Builders be, and they are hereby, instructed to submit to the Secretary of the Treasury and the supervising architect the necessity of such rule, and to memorialize the governors of the various states and urge upon them the justice and urgency of an enactment covering the points set forth, and as per draft hereunto annexed; and

*Resolved*, That each local exchange and builder be, and they are hereby, requested to call the attention of the legislatures of the various states to this matter, and bespeak their coöperation in the early passage of the following :

*Be it enacted :*

SECTION 1. That when public buildings or other public works are about to be built, repaired or ornamented under contract at the expense of this state, or of any county, city, village, township or school district thereof, it shall be the duty of the board, officers or agents contracting on behalf of the state, county, city, village, township or school district, to require sufficient security, by bond, for the faithful performance of said work and for the payment, by the contractor, for all labor performed or materials furnished in erection, repairing or ornamenting of such building or other public work, done upon order or request of said contractor.

SEC. 2. Such bond shall be executed by such contractor to the state, county, city, village, township or school district, in a sum equal to the amount of contract and with such sureties as shall be approved by the board, officer or agent acting on behalf of the state, county, city, village, township or school district, as aforesaid, and conditioned for the payment by such contractor, as the same may become due and payable, of all indebtedness which may accrue to any person, firm or corporation, on account of any labor performed or materials furnished upon the order or request of said contractor in the erection, repairing or ornamenting of such building or work. Such bond shall be deposited with and held by such board, officer or agent, for the use of any party interested therein.

SEC. 3. Such bond may be presented, and recovery had, by any person, firm, or corporation, to whom any money may be due and payable by said contractor, on account of labor performed or materials furnished in the erection, repairing or ornamenting of such building or work in the name of the people of the state, county, city, village, township or school district, for the use and benefit of such person, firm or corporation; *provided*, such claim is filed with such board, officer or agent within thirty days after such work has been done, labor rendered or materials furnished, and action for recovery shall be commenced in any court

of record within thirty days thereafter; and *provided*, that the state, county, village, township, or school district shall, in no case brought under the provisions of this act, be liable for costs.

On motion, the resolution was referred to the Committee on Resolutions.

In response to the call of the president for the reports of the committees, the following were presented : Report of Legislative Committee on Uniform Contracts, on Lien Law, on Rules and Conditions for Estimate Work, on Permanent Arbitration, on Bureau for Furnishing Sureties on Builders' Estimates and Contracts, on Apprenticeship, on Uniform size of Brick, on Insurance against Accidents to Workmen and Others.

Secretary Sayward read his annual report, after which the president appointed as the committee to report time and place of next convention, and to nominate officers L. P. Soule, of Boston, Mass.; John Rawson, of Grand Rapids, Mich.; William A. Rutter, of St. Louis, Mo.; William H. Stewart, of Cincinnati, Ohio, and Asher Bassford, of St. Paul, Minn.

The president stated to this committee that their report would be the first order of business on Thursday afternoon.

The treasurer, Mr. George Tapper, of Chicago, Ill., read his report, and the Auditing Committee reported it correct. The receipts and expenditures of the year had been about equal.

After an entertaining address by William M. Smith, president of the Common Council of Philadelphia, on motion, the convention adjourned until 10 o'clock Wednesday, February 13, 1889.

#### MORNING SESSION—SECOND DAY.

The convention was called to order by President Stevens at 10 o'clock A.M. Assistant Secretary Voshall called the roll.

#### CONSIDERATION OF REPORT OF COMMITTEE ON UNIFORM CONTRACTS.

In response to the call of the president, Mr. George C. Prussing, of Chicago, read the following report of the Committee on Uniform Contracts.

##### REPORT OF COMMITTEE ON UNIFORM CONTRACTS.

Your Committee on Uniform Contracts, appointed at our second convention to act jointly with committees appointed by the American Institute of Architects and the Western Association of Architects, each empowered by the respective bodies by them represented "to prepare and adopt in such committee of conference a form of contract properly protecting the interests of owner and contractor," and "vested with power to print the form of contract that may be agreed upon by said committee of conference, and distribute the same to the individual members of all associations represented, with a recommendation of its adoption," respectfully submit the following :

The impossibility of reaching practical results by correspondence became apparent to all after a few months' trial, and a joint meeting was agreed upon and called to New York on June 6, 1888, where the joint committee met in the rooms of the American Institute of Architects, No. 18 Broadway.

This association was represented by Messrs. John S. Stevens, of Philadelphia; John J. Tucker, of New York, and George C. Prussing, of Chicago; Mr. Stevens serving in the place of Mr. Edward Scribner, of St. Paul, who was prevented from attending by ill health.

Mr. William H. Sayward was also present.

The American Institute of Architects was represented by Messrs. O. P. Hatfield, of New York; Alfred Stone, of Providence, and J. H. Windrim, of Philadelphia, and the Western Association of Architects was represented by Messrs. Samuel A. Treat and W. W. Clay, both of Chicago.

The meeting organized itself by electing Mr. O. P. Hatfield president and appointing Mr. W. H. Sayward secretary, of the joint committee.

It will be noticed that the first meeting of the committee was attended by five practicing architects—one of the gentlemen appointed, Mr. James F. Alexander, of Lafayette, being absent—and only three builders.

But such is the character of the gentlemen appointed that, while wide differences of opinion were held and the articles submitted provoked long and earnest debates, made interesting and profitable by the large and varied experience of the participants in different sections of our country, there was not an instance in which upon roll-call the members divided strictly on the line of their profession or calling, all strove honestly to do even-handed justice to all parties in interest—the owner on the one hand and the builder on the other—and to set forth clearly the rights and duties of the architect acting as agent for the owner.

When finally agreed to with practical unanimity the various articles were left in charge of Messrs. Hatfield and Sayward as a sub-committee to arrange, submit to criticism and correction by high legal authority, print, re-submit to the various members of committee for review, and then, in order to secure absolute uniformity and control, finally to copyright form so perfected in the name of the joint committee, and license some responsible publishing house as its sole publisher.

Of the various propositions made, that of the Inland Publishing Company proved the cheapest to purchasers of blank, and was deemed the most advantageous otherwise, and it has been duly licensed by your committee for five years.

To what extent your committee has succeeded in framing an instrument which will meet the various and varied circumstances constantly arising, can be demonstrated only by the continued use of the form adopted and attached hereto as part of this report.

Time will demonstrate the advisability of changes and amendments. When so shown, the machinery for perfecting the form is at hand and can be readily set in motion by reassembling the joint committee.

Affiliated bodies cannot make changes.

Builders and architects have had an opportunity to familiarize themselves with its provisions by the distribution of sample copies to each of the members of the three organizations represented in committee, and many of you have doubtless been called upon to execute building contracts on this blank.

Your criticism is cordially invited, and should be addressed to the chairman of this committee in writing.

By the foregoing the necessity of the existence of a permanent joint committee is shown.

Your committee, therefore, conclude by proposing the following resolutions:

*Resolved*, That the Committee on Uniform Contracts be and it is hereby made a standing committee on the National Association of Builders.

*Resolved*, That this convention recommend to all builders the use of form of contract adopted by the joint committee of the American Institute of Architects, the Western Association of Architects, and the National Association of Builders, commonly known as the "Standard Contract."

Respectfully submitted,

EDWARD E. SCRIBNER,  
GEORGE C. PRUSSING,  
JOHN S. STEVENS,  
JOHN J. TUCKER, } Committee.

WILLIAM H. SAYWARD, Secretary.

H. R. Coulomb, Philadelphia : Mr. President, I move that the report be received and that the resolutions appended thereto be adopted.

Mr. Cotterall, Cincinnati, Ohio : Mr. President, before the adoption of this report by this convention I would like to state that the



Builders' Exchange of Cincinnati desire to recommend some slight modifications.

The President: You can read them, but according to the statement made by the acting chairman of the committee, and he has certainly made himself very plain in that matter, as to any suggestions or alterations that may be considered advisable by any exchange, affiliated bodies or associations, the proper plan would be to send in writing their communications to the chairman. We have no objection at all to hearing it read, because it might be a point that had great weight in it that would lead the other exchanges to make some suggestions.

Mr. Cotterall then read the changes recommended by his exchange.

The President: I hardly think it would be proper at this time to have these matters discussed. There is but one plan by which conclusions can be intelligently arrived at, and that is by a reference to the joint committee representing the three bodies who formed and compiled this contract. It is eminently proper and right that each association should criticize this, and if they have any objections to it or any amendment that they can suggest that would improve its character, it is right that they should send communications, or their written arguments, to the chairman of the committee and they will have due weight and consideration there.

The propriety of listening to the criticisms upon the form of contract was discussed by J. M. Blair, of Cincinnati; Charles A. Rupp, of Buffalo; H. R. Coulomb, of Philadelphia; John Moore, of Syracuse, and W. H. Foulk, of Wilmington, Del., after which the chair ruled that the matter should not be discussed, and Mr. Prussing, chairman of the committee, said:

George C. Prussing, Chicago: Mr. President, I submit to the good sense of this convention and its presiding officer that the committee was appointed under a certain resolution, clear and emphatic in its language, and identical with the same resolution adopted by the American Institute of Architects and the Western Association, and that the committee has fulfilled its duty to the letter, and comes here with the result of its labors, and inasmuch as you gave to that committee authority, you should respect it. I will read it to you, "vested with power to print the form of contract that may be agreed upon by said committee, and distribute the same to individual members of all associations represented with a recommendation for its adoption." You gave the committee that power and it is the identical power that the other committees had. I take it on the floor of this convention that you cannot even criticize it without infringing on the laws of good taste, to say the least. The manner of writing the document was agreed to, and then this committee was appointed to perfect it as time would show that perfection was needed. You have not given it sufficient time, I take it, to know of its defects thoroughly, and all criticism, in my judgment, is ill-timed and certainly out of place in a large convention like this, but must be considered carefully in committee. The manner of perfecting that instrument is to write your suggestions and amendments and whatever you may have to say on it; arguments—put them on paper, give them to your committee and it will weigh the evidence then before it and bring it before the joint committee, and your contract will slowly be perfected, and only in that way can it be done. I will state, furthermore, that the American Institute of Architects has had its annual convention, and both adopted the report of the committee as rendered, and recommended each of their members to adopt the contract as perfected. I take it that any debate on the subject is superfluous, because it is not within the power of this meeting of the National Association, legislative body though it may be on some questions, to consider the question. I submit it is out of place in this convention.

A. McAllister, Cleveland, Ohio: I move the report of the committee be accepted, and that the resolutions thereto attached be adopted.

The question was called for, and the resolution that the report be accepted and the resolutions thereto attached be adopted was carried and so ordered.

The report of the Committee on Lien Law was read by Assistant Secretary Kavanaugh, as follows:

#### REPORT OF LEGISLATIVE COMMITTEE ON LIEN LAW.

At the last convention of this association held in Cincinnati, the Legislative Committee submitted a report upon the lien law, giving their views as to general points which should be covered in all lien laws, in order to secure a reasonable uniformity in the various states of the country. This report was at first adopted, but after certain agitation that action was reconsidered, and the whole matter was referred to the incoming committee of 1889.

That committee, having thoroughly examined the report of last year and considered the subject proper in its various phases during the twelvemonth which has elapsed, make the following report:

In their opinion the recommendations of the committee of last year are eminently just and fair, and the various interests to be considered in the protection offered by laws of this character were placed by that committee in the proper order, namely:

*First.* Personal laborer.

*Second.* Labor furnished, or labor and material furnished by sub-contractors.

*Third.* Labor or materials or both furnished direct to owner, either by contract or otherwise.

*Fourth.* Material furnished to a direct contractor.

While your committee are satisfied that no other claims should in any event have the protection of a lien law, they are very thoroughly convinced that there is little real justice in any lien law whatever, that its existence in any form is an encouragement to unreliability, and is a legal premium offered to dishonest practices; they see no reason why anyone who sells goods to a builder should have a method of securing himself upon a third party any more than the merchant who sells goods to any other class of people.

They are aware that it will be urged that the existence of the opportunity for the seller to attach the property of the owner will stimulate the owner to employ only reliable builders.

They are also aware that it will be claimed that the non-existence of the opportunity to attach will lead the owner to make contracts with unreliable builders with the distinct purpose of defrauding the seller of material, or of permitting him to be defrauded by the dishonest or unreliable contractor, while he, the owner, reaps the benefit in the low price at which he secures a contract; and

they are aware that it will be confidently stated that dishonest owner and dishonest contractor will enter into collusion with each other to divide the spoils of such fraudulent transactions.

While these arguments will be made and urged with great force and persistency, your committee are also well assured that the arguments on the other side are of greater force and weight.

We protest that this protection is in itself a species of class legislation, and that the arguments in its favor place altogether too much reliance upon a dishonesty of owners, which, to our mind, is more of a theory than a condition.

Your committee claim that this desire on the part of owners to deal with unreliable builders simply for the sake of a lower price is an assumption that will not bear critical examination from the standpoint of common sense; that it has, at all events, been magnified far beyond the facts in the case; and that the real truth of the matter is that the very large majority of the public are continually trying to avoid the unreliable and dishonest contractors because their best protection in the quality of the labor performed, "the goods delivered," is to be found by so doing, and they do not need the stimulus of a lien law to push them to this conclusion. It is only the minority, and a very small minority of the public at that, who are eaten up with such a desire to get their buildings for next to nothing that they will run all risks imaginable to gain this point. Therefore, a law to cover a condition which only a minority create and by the enforcement of which the majority are injured, is unfair and unreasonable. Therefore, a law which encourages a certain class in the community to sell goods to anybody, no matter who, under the wing of a law which says to them, "If you can't get your money of the man you sell to, you shall be permitted to get it of someone else," is improper in its intent and contrary to one of the very fundamental features of trade—a protection which no other sellers have, and which works directly against the honest man on either side.

Your committee claim that the honorable, reliable and responsible builder, whom they believe this association represents, is directly wronged by such laws as these, for the sellers of material are an immense class, outnumbering the building owners ten to one; they are an eager class, pushing to sell, and with lien laws for their special protection they are the prolific cause of foisting upon the market a shoal of unreliable contractors, while if no such laws existed they would look, the same as every other merchant must, to the character and the means of the men they deal with; they would become conservative to their own good and to the good of the building community generally, and be a factor in a better condition of credit and a better class of buildings.

Your committee therefore ask that the association adopt the following resolution:

*Resolved.* That this association send to the legislature or governor of each state in the Union a request that action be taken to secure the amendment of lien laws so that they will only protect actual personal labor performed upon the property liable to attachment, in amount not to exceed the value of twenty-four days' work for each individual entitled to protection, and that all filial bodies be recommended and urged to do their utmost to secure in their various state legislatures the above-desired action.

Respectfully submitted,

MARC EIDLITZ,

WILLIAM HARKNESS, JR., } Committee.

E. L. BARTLETT,

J. J. Weaver, of Philadelphia, moved that the report of the Legislative Committee on Lien Law be accepted and the resolutions thereto appended be adopted. (Seconded.)

Mr. Prussing: I trust the convention, now that it is a legislative body, will not pass anything unless it is right. Let us examine whether this is what we mean. I call the attention of the gentlemen, in order to make my point, to the first page of the report, in which are enumerated the persons who are entitled to a lien in our judgment. The first named is the personal laborer. I take that to mean the man who works for day's wages. Of course that is of prime importance and he ought to be protected. It says second "Labor furnished, or labor and material furnished by sub-contractors." Third "Labor or material or both furnished direct to owner, either by contract or otherwise." I take it from the applause that was given to the ending of this report that we are practically of the opinion that lien laws, as they exist today, are a delusion and a snare, and, if any liens should be granted, they should be granted to the man who performs a day's work actually at the building, and they cannot take it away by any process of law, and the man who furnishes labor and material direct to the owner, and I may add, as far as my own judgment goes, nobody else. I say the man who furnishes the labor and material to the owner direct, in one instance he may be a general contractor, and in another instance he may be the contractor for a particular part of the work; but he is the man who signs a contract with the owner, and should have a lien. And I say "nobody else," because everything else complicates matters to an extent that makes the present lien laws impracticable and of no avail, and a delusion and fancied security instead of what they are intended to be. The third clause, which means the man that contracts direct, and puts his work and material directly in there, should be the second. He is the general contractor. "He is the man who contracts with the owner direct to furnish building materials for the construction or ornamentation of the building and he should have a lien, and the man who is enumerated in the second clause, the sub-contractor, should come after the general contractor if he has any lien at all, and not before him. In other words, that the material man or sub-contractor should first look to the security and the standing of the general contractor with whom he deals, and not to the building. We, as contractors and men who are better experienced in the practical operation of these laws and rules should advise legislators, who do not know what the practical operation is as well as we, what is right and proper in the matter, and, gentlemen, take my word for it, they will take your advice if properly expressed.

A long discussion took place upon the amendment offered by Mr. Prussing, regarding the transposition of the second and third clauses. The discussion broadened over the general subject of liens. The amendment was lost sight of finally, and the original motion spoken to.

H. R. Coulomb, Philadelphia: Mr. President, no gentleman here can, understandingly, speak to the question, because there are two questions before the convention; the accepting of the report and the adoption of the resolution, neither of which are proper subjects to be discussed by any gentleman who is a delegate here. If it is the pleasure of the convention to have the discussion, I would like to discuss it; if it is not, I have no disposition to discuss it. The lien law is a very nice thing. Mr. Prussing, I have no doubt, ate his breakfast this morning. Suppose the baker who furnished the hotel with the bread this morning was to come in here and arrest Mr. Prussing for the bread that he ate for his breakfast. That is just as much



good law as any lien law. Nearly all of the gentlemen here are too young to understand what first brought about the lien law. The cause that existed then does not exist at the present time. If a man buys 100 barrels of flour and sells them to a baker, the baker has title to them as soon as he gets them. If a man sells me 100,000 bricks and delivers them to my building, I should have title to them as soon as I get them and he ought to look to me for his pay, and not to Mr. Stevens or somebody else. The government contracts with Mr. Cramp to build a ship worth \$1,000,000, in comparison with which our petty contracts do not amount to anything, and yet there is not a man who furnishes a jot of work to that ship who has a claim on it. When the government pays Mr. Cramp they take title to the ship and take it with them. Why does not the man who is having a building erected take the building with him when he pays for it? Why should we protect ourselves only? We want all the protection for ourselves, but we are not willing to afford other people who are interested in business the same amount of protection that we claim for ourselves. I believe this resolution offered by the committee is a proper one, and one that should be brought to the notice of every state legislature so that this lien law will be amended as the committee recommend.

D. V. Purington, Chicago: Mr. President, the Chicago delegation has perhaps occupied more than its share of the convention on this question, but I want to call the attention of the convention to a few of the absurdities of looking for protection in a law that has been amended in almost every state, altered and changed until there is hardly a vestige of the original law left. In our city of Chicago, when this matter came up before the Exchange at our annual meeting, we had a little class meeting, an experience meeting, and while we were waiting some two or three hours for the tellers to report the result of the election, we gave time to the discussion of the lien law. All the builders were there and some of the material men, and there were but two men present who had ever prosecuted a lien successfully under the law, and one of those men collected \$10,000 by carrying the case to the Supreme Court of the United States, and it cost him about \$11,000 to collect it, he said then he would not have collected the money if the man had not been good without any lien law. He paid the judgment. In the State of New York, with all due deference to my friend of New York, I am told on what I consider good authority that there are twenty-six different lien laws. That is to say, there are twenty-six different ways in which people can seek protection under the lien law. For instance, New York and Brooklyn have a law entirely different from the rest of the state. Is not that so?

Richard Deeves, New York: Not now; there is a uniform law all over the state.

D. V. Purington: In our state the law has been changed and amended so you can drive a team through it anywhere. It is not good for anything. As a man belonging to that class who are supposed to rely more on the lien law than anything else, I am decidedly of the opinion, after twenty years' practice, as my friend stated it, that the material men or sub-contractors for a building should look to the men rather than to the building. I am satisfied that our lien law, with its fancied security, as it exists at the present time in the State of Illinois, is a detriment to honest builders; that it fosters and encourages and builds up weak and irresponsible men, and that we, as material men, sell to these men because of the lien law, rather than because of their ability to pay. I am further satisfied that with the abolition of the lien law entirely, we should put a large amount of capital into the business of building in Chicago, and we should build up a class of men of whom we should be proud—men whom we could all trust. If you go to a large dry-goods store and buy a bill of goods, the man who sells you those goods has no lien following them; he cannot take the goods; the title passes immediately to the purchaser; he can only obtain the pay for those goods; and why should not we, like all people engaged in the mercantile business, require the men to furnish a statement of his responsibility and reliability, and if he furnishes a statement accompanied by an affidavit, as we can compel him to, if that statement is false, we can put him in jail; we can arrest him for false pretenses. In my judgment, that would be a far better way of collecting bills than under the lien law of any state.

The President: In looking this subject over, I feel that the report of the committee is one thing, and the resolution is another, and I want to have them separated, because in this report they say that they feel that such and such a person should be protected, and they start out first, second, third and fourth. In their resolution they finally say that nobody shall be protected but the first one, which is the personal laborer; so the two things conflict, and we will first take up the report of the committee.

Secretary Sayward: It is about time for Boston to say a word. I had hard work to hold myself in on the "Uniform Contract." On this subject I want to say one word. On the motion to receive the report and to adopt the resolution, I would prefer that the resolution should be adopted with a slight amendment. The resolution reads:

*Resolved*, That this association send to the legislature or governor of each state of the Union a request that action be taken to secure the amendment of lien laws so that they will protect actual personal labor performed upon the property liable to an attachment.

I would like to have it amended so that it should also protect the claim of the direct contractor, which I think is the intent of the committee really, and it probably was a slip in not making it. I would therefore move you that the resolution be so amended that it shall cover the claim of the direct contractor, as well as the actual personal labor of the laborer. The motion was seconded.

Mr. Prussing: As has been already said by the gentleman from Buffalo, great minds run in the same channel. The secretary has said something I meant to make a speech on. I will offer to you a

resolution which was framed last night directly in the line of what the secretary suggests.

I offer this as a substitute for the resolution contained in the report:

*Resolved*, That this association request the governor of each state and its legislature that action be taken to secure the amendment of lien laws so as to protect the claims for wages of workmen employed in the erection of all buildings, hired by the day or hour, and for labor or materials, or both, furnished to owner direct by contract or by his order, and to those only, and that all filial bodies are recommended and urged to do their utmost to secure in their various state legislatures the above desired action.

Marc Eidlitz, New York City: Mr. President, while I have a great deal of respect for Mr. Prussing's advice, I do not think that the article can be bettered any by being changed. All these expressions are not necessary. "Personal labor" expresses it. A man who works on a building and does not get his pay in one fortnight can surely make up his mind that he won't get paid and had better go away, and he should have no more right to call on the owner. After he knows his employer does not pay him for two weeks, he may as well make up his mind to go away. He has got to be limited. Therefore, I think the language in this resolution is perfect, with the amendment of Mr. Sayward. While I am not at all conceited about it, I think it is fully as good as anything they can substitute.

Charles A. Langley, Washington, D. C.: Mr. President, the resolution says the "governor of each state." It only designates states. Washington is in the District of Columbia, and not under a state government. Does this body have any legislation that would come under any of the territorial governments? We have a very objectionable lien law in the District of Columbia, and I would like to have inserted "district or territorial government."

William A. Rutter, St. Louis, Mo.: Mr. President, I represent a material house, and if our lien law was so amended as Mr. Prussing wishes it I do not think that it would have any ill effect on us, with this exception, that if the contract requires us to give him a bond to perform the work we shall certainly require him to give us a bond to furnish the money, and we shall sign no contract to furnish work without a contract to furnish the money.

A. S. Reed, Wilmington, Del.: I submit that the resolution is right now, and I think that the amendment of the gentleman from Chicago will complicate matters. In our town the experience has been that the complication of the lien law is where the trouble is. We have a good lien law in Delaware, but the trouble is we cannot enforce it, there is so much machinery to it, and I submit we do not want any lien law at all. I say, as far as my personal experience goes, we would be a great deal better without a lien law. There is one important thing in connection with it that has not been touched upon very much during the discussion, and that is that it has built up a set of irresponsible builders and has injured the legitimate builders, and I do not think that we have ever had anything in our town, hard times, panics and everything else that has done as much injury to the legitimate building business to the city of Wilmington as the lien law.

Richard Deeves, New York: I move this whole subject of the report of the committee lay over for one year, with the understanding that the committee take up the New York lien law and its workings, and study it over.

Secretary Sayward: I do not think it would be wise for this convention, so large a number of people coming together, some of them with views that have been somewhat matured, many of them that have not been matured at all upon lien laws, to discuss any particular lien law of any particular state. With the experience that I have had in examining lien laws, not only the lien law of the State of New York, but the lien laws of all the states and territories, I can certainly testify that a person gets pretty thoroughly wound up when he gets through with it, and even that which the gentleman speaks of, the State of New York, it seems to me is really of no more value than many others, although it may seem so to him. So I think if we got into that sort of discussion it would be impossible for us to get through. It appears to me the only thing this association is competent to do, or ought to attempt to do, is to give our views upon the general principles as to what we think ought to be done in the way of general protection in this particular matter. I made a motion to amend the resolution, and I understand that the motion that is submitted by the gentleman from Chicago is as a substitute for what I suggested. I have now put mine in words and I will submit it to you. I am better satisfied with it than what has been presented, although it is exactly of similar tenor. I will read you the resolution as I have amended it.

*Resolved*, That this association request the governors, legislatures or authorities of each state, district and territory in the United States, to take action to secure amendments to lien laws so that they shall cover the two following classes of claims and none other, namely:

1. Claims for wages of workmen actually employed upon the property liable to attachment by the owner.
2. Claims for labor and material furnished direct to owner, either by contractor or upon his order.

*Resolved*, That all filial bodies be recommended and urged to do their utmost to secure the above desired action.

Mr. Prussing: I desire to say that what the secretary has just now read is exactly what I meant to say in his own language, and I therefore withdraw my motion as made and second the adoption of his.

Anthony Ittner, St. Louis, Mo.: I desire to say a few words on this subject, because it is a subject to which I have given a great deal of attention, not only as a mechanic and manufacturer, but as a legislator. It is a subject that wherever you go you will find two or more opinions concerning it. With all of the experience that I have had, and with all of the knowledge that I have been able to gain upon this subject, I am in favor of the proposition as pending and as amended by Mr. Sayward. Of course, even in that light it is class



legislation. If the lien law was abolished outright as far as every other individual is concerned than the laboring man and the mechanic, it might be well, and it might, perhaps, be well to abolish it as to those parties, the laborer and mechanic; but there seems to be a general disposition, and I presume it is a praiseworthy one, to protect those individuals, and I should utter no word in opposition to that spirit. I have not the pleasure of the gentleman's acquaintance on the other side of the chamber who suggested why not insert the sub-contractor. If you are going to insert the sub-contractor why not put it aside entirely, because that leaves it just as it is now. I do not presume there is a lien law in any state or territory of this Union that does not protect the original or direct contractor, the sub-contractor and the laboring man and the mechanic, hence, if you insert into this amendment a sub-contractor you have got it just about as you have it now. But the reason I am opposed to inserting the sub-contractor is this, and it has been mentioned by some of the gentlemen who have spoken here upon this subject—probably not touched upon as prominently as it should be—I say it brings in irresponsible parties, parties who have got no money, no character, no honor and no honesty or anything else except a human form. I am a sub-contractor myself, and I want you to understand that I do not desire to cast any reflection upon any man who is engaged in that calling or in that capacity in connection with the building trade interest. But I wish to reflect upon every man in the United States, from the topmost rung of the ladder down to very bottommost, if he is not an honest, honorable, fair-dealing man, and does not wish to give compensation for value received under all circumstances and in all trades and in all directions. That is what I desire to accomplish by my action here.

C. C. Dewstoe, Cleveland, Ohio: Mr. President, I wish to indorse Mr. Sayward's position, for a reason that seems to have escaped a great many of the gentlemen here. They ask why the builder should have any protection different from the merchant. The merchant has a protection in the nature of things that the builder cannot always get. The merchant sells millions of dollars' worth of goods to people who they know are utterly irresponsible, but they leave their money when they take their goods. If I do work I cannot take my money. I do not know how much I have got to take until I do my work. It is utterly impossible for builders to do business on a system of deposits in advance, and for that reason we should have recourse on the owner of the property for goods furnished to him.

C. W. Gindele, Chicago: Mr. President, seeing that the convention is consuming considerable time in this matter of the lien law, it occurred to me that I might occupy its time for a little while. I hope that the resolution, as amended by our secretary, will be passed by this convention. I think, as far as the contracting business is concerned, and contractors, that heretofore they have always been looked upon, as far as the majority is concerned, as the off-scum, as far as business matters are concerned, or as far as business principle is concerned; for this reason, there has always been something of a string tied to them in case they want to be dishonest. Everybody has looked to the fact that if Mr. Contractor buys materials and does not want to pay for them we have got something to catch him. By passing this resolution of the secretary it will give us a better standing with the community; a man can then hold up his head and walk the streets; look at the man he is buying his material from and not think that the man is looking upon him and with the expectation that if he owes him for one hundred thousand bricks, or something like that, if he does not pay him in a few days he will put a lien on him. As far as the sub-contractors are concerned, I think if they will look at this matter squarely they will find it to their interests to deal with general contractors who have the right of the lien law only, and for this purpose; because, in the first place, it will caution the architect and the owner to whom they let their work, and the material man who sells material to the general contractor will take care to see that the man he sells to is a man that is responsible and a man that occupies an honorable position in his profession, so that in adopting that resolution it will give us all a better standing, as far as the architects and the owners of the United States are concerned. I therefore move you the adoption of the resolution as Mr. Sayward has formulated it.

The resolution, as amended by Mr. Sayward, was then adopted by the convention, and the report of the committee accepted.

The report of the Legislative Committee on Rules and Conditions for Estimating Work was read, as follows:

#### REPORT OF LEGISLATIVE COMMITTEE ON RULES AND CONDITIONS FOR ESTIMATING WORK.

During the year your committee have carefully considered the code which was adopted at the second annual convention for the purpose of more clearly setting forth the proper conditions under which estimates should be submitted by contractors in the building trades, and in the establishment of which it was hoped that affiliated associations would be able to secure the coöperation of architects in their several localities.

During their investigations, your committee have interviewed many parties interested, including owners, as well as architects and builders; have received reports as to action taken from filial bodies of the National Association, and beg leave to report as follows:

They find that the rules and conditions have in no case been adopted in the exact form in which they were formulated by the convention, and have not been indorsed in the manner desired, namely, *by builders and architects jointly*, in more than two or three instances.

They believe that the cause for this non-adoption is to be found in two inherent defects:

*First*, Clauses which solely concern builders are improperly introduced in a code which purposes treating matters of joint interest to architects and builders, and in the establishment of which architects are to be invited to coöperate.

*Second*, The form of words used in the title itself, as well as in many of the clauses, has seemed to those invited to coöperate to savor too strongly of arbitrary enactments, which in that guise might fail to become effective, and ought not as such to be enforced, while certain clauses were susceptible of a better and more comprehensive construction, which would render others unnecessary, and make the whole code more concise.

Your committee, therefore, recommend that the whole code be carefully amended, rearranged, and divided into two distinct portions, one portion to

comprehend the conditions and methods in the establishment of which architects may properly be invited and expected to coöperate, and the other portion to comprehend those which apply to the relation of builders toward each other in matters connected with estimating.

For the purpose of securing action with as little delay as possible, the committee submit the following rearrangement and division of the code (in accordance with their recommendations) for the consideration of the convention:

#### I.

The National Association of Builders, in convention assembled, recommends all filial bodies to secure the coöperation of architects in their various localities (through organized bodies when possible), in the establishment of the following code, in order that there may be a well-defined and recognized system or "practice" under which estimating should proceed, bearing the approval of both architects and builders.

#### CODE.

Just and proper methods which should prevail when estimates are solicited from contractors in the building trades:

1. *Plans*.—Drawings, when offered for final or competitive estimates, should be sufficient in number and character to represent the proposed works clearly; should be at a scale of not less than one-eighth of an inch to the foot, and be rendered in ink or some permanent process.

2. *Details*.—Proper details should be furnished for work that is not otherwise sufficiently described for estimate.

3. *Specifications*.—Specifications should be in ink. They should be definite where not sufficiently defined and explained by drawings, and every distinctive class of work to be included in contract should be mentioned and placed under its appropriate heading.

4. *Restriction as to Sub-Contractors*.—Contractors should be notified, at time of estimate, if they are to be restricted in the employment of their sub-contractors.

5. *Sub-Estimates in Architect's Office*.—Sub-estimates for portions of the work which principal bidders are required to include in their original estimates should not be received in architects' offices, either as an accommodation to principal bidders, or for any other purpose.

6. *Percentage on Sub-Contracts*.—Contractors should be allowed a compensation of ten per cent on all sub-contracts which at the time of estimate are "reserved" or not called for in their portion of the specification, but which may be assumed by them by direction of the owner or architect.

Contractors should not be denied contracts upon portion of work covered in their original estimate, on account of declining to assume at any price the aforesaid reserved sub-estimates in their contract.

7. *Sub-contracts*.—A sub-contractor should not (without his free consent) be "placed" under a general contractor.

8. *Binding limit of estimates*.—Estimates should not be binding more than thirty days after received.

9. *Award*.—When work is to be let, for which estimates have been solicited, unless previous notification to the contrary has been given, the lowest invited bidder should be entitled to the contract, and all minor changes should be agreed upon with him, provided his prices be equitable.

If radical changes are made, then the whole competition should be reopened. Bidders should not be allowed to amend their estimates after the bids have been opened and before the award.

10. *Compensation for estimating*.—Should all solicited bids be refused, the lowest bidder should be entitled to compensation, as follows: For estimate of

\$5,000 and under .....	\$25.00
\$5,000 to \$50,000 .....	50.00
Over \$50,000 .....	100.00

#### 2.

The National Association of Builders, in convention assembled, recommends all filial bodies to adopt the following code, for the guidance and protection of their members in their relations to each other in estimating, in order that there may be some recognized and definite "practice" in these matters which may be referred to with certainty as "just and honorable methods":

#### CODE.

Just and proper methods which should be observed by all contractors in their relations to each other in estimating:

1. *Rights of sub-bidders at the hands of general contractor*.—A principal contractor having been awarded a contract involving sub-contracts, his estimate having been based upon sub-estimates, which he has solicited, should award the said sub-contracts to the lowest bidder, and should notify the sub-bidders that their estimates have been accepted or rejected as soon as the contract has been awarded to him.

The fact that such sub-bids were received by the principal contractor, previous to the submission of his estimate, should be conclusive evidence that they were used by him.

2. *Unsolicited bids*.—Should a principal contractor receive a sub-estimate unsolicited, he should not be considered under obligation to use the said bid, even if it be the lowest; but he must not reveal the bid, nor use it in any way to influence any other party.

3. *Sub-estimates in architect's office*.—Sub-contractors should avoid leaving their estimates in architects' offices when they are received there simply as an accommodation to, and for the information of, principal contractors. By such action there is danger that bids may become known to competing sub-contractors before estimates are closed.

4. *Penalty*.—Any member detected in trading on any of the sub-bids, whether they be solicited or unsolicited, or however knowledge of them may have come into his possession, should be liable to forfeiture of membership, censure or suspension.

In submitting this report your committee suggest that the National Association strenuously urge all its filial bodies to use every proper means to secure the recognition of these two codes as nearly as possible in the form here recommended, and at an early date, it being very evident that the existence of some definite system, covering the various points treated, will be of the greatest advantage to all concerned.

In the case of code No. 2 the action will be simple, for it is only necessary to adopt it within organizations of builders, but with code No. 1 the societies or chapters of architects (and in the absence of these, a combination of individual architects) must be asked to unite in joint consideration and action.

No time should be lost in establishing both codes.

Respectfully submitted,

MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

J. J. Weaver, Philadelphia, Pa.: I move that the report be taken up seriatim, and considered clause by clause.

The motion was seconded and adopted.

Richard Deeves, New York: I move, for the facilitating of business, that no delegate be allowed to speak more than five minutes or more than once on any subject.

The motion was seconded and adopted.

The secretary then read the first, second and third clauses of the report of the committee, and there being no objection to the same, they were adopted.

The fourth clause was read by the secretary.

W. H. Stewart, of Cincinnati, moved that the fourth clause be stricken out, which motion was seconded.

Mr. Ittner: Mr. President, I hope that that action will not be taken by this convention, because, as far as my experience extends, I think that is a very wise provision, and should be allowed to remain.



I think the committee deserve credit for having incorporated it in their report.

Mr. Stewart having withdrawn his motion, and there being no objection, the fourth clause was adopted.

The secretary read the fifth, sixth and seventh clauses of the report of the committee, and there being no objection to the same, they were adopted.

The eighth clause was read by the secretary.

Mr. Prussing: Mr. President, I do not believe that we should say anything about that. I am in the habit of making my estimates for five days or ten days, as the case may be. I do not want a general rule. That ought to be left to the business of the man himself. I move that that clause be stricken out.

Mr. Ittner: I move that that clause be allowed to remain in the report, by striking out "thirty" and inserting "ten."

The motion was seconded.

Secretary Sayward: Mr. President, I am surprised that the gentleman from Chicago should object to that, because he must bear in mind that we are simply preparing a general code which shall be recognized by architects and builders together as something to guide them generally. If the gentleman chooses, whenever he makes an estimate he can put in it that it shall be only binding for five days, or ten days, or one day. That is a matter of his own liberty. But it should be recognized that at some time or another the obligation should cease. There should be some general practice or general rule to which we could refer at any time when we needed a reference, and I certainly think that thirty days is not too long. In reply to the gentleman from St. Louis, I would say that possibly ten days is a little short.

Mr. Ittner: I insist upon my amendment. I have no objection to modifying it to fifteen days, but I would not like to go beyond that time.

Mr. Prussing: I am also surprised.

A member: I move that it is the sense of this convention that Mr. Prussing is surprised.

Secretary Sayward: That reminds me of a story. Mr. Prussing wants some of my unexpired time. There was a gentleman in Chicago who was about to be hung, and the sheriff asked him if he had anything to say, and he said he hadn't, but a gentleman in the audience stepped forward and said, "I would like to use fifteen minutes of the gentleman's unexpired time," and the sheriff turned around to the man and said, "Shall he have it?" and the man said, "No; I would rather be hung." I think that the gentlemen, upon a little more consideration, will see that we are arguing for a practice which shall be sustained generally by architects and builders, and that we had better leave it thirty days. There are estimates being submitted, for instance, on three or five or six days apart, and the full contract, perhaps, is not going to be decided right away. If I am an architect I may get a bid for a portion of the work today, I may get the next bid, perhaps, a week or ten days afterward, and, therefore, it would give a proper leeway for the architect to put it at thirty days. A man would hardly be injured very much by having the matter fixed at thirty days.

(Cries of "question.")

Mr. Ittner: I have new light upon the subject now, and in view of that light, I wish to withdraw my motion.

The motion was then carried, and clause No. 8 was adopted.

The secretary read the ninth and tenth clauses of the report of the committee, and there being no objection to the same, they were adopted.

The clauses under No. 2 code were considered and the secretary read several clauses, and there being no objection to the same, they were adopted.

George R. Phillips, Providence, R. I., moved that the report of the Legislative Committee on Rules and Conditions for Estimating Work be accepted and adopted as a whole, which motion was seconded and carried.

The report of the Legislative Committee on Permanent Arbitration was read by the secretary, as follows:

#### REPORT OF LEGISLATIVE COMMITTEE ON PERMANENT ARBITRATION.

The Legislative Committee have thoroughly reviewed the method of arbitration adopted at the last convention, and find no reason to suggest material change.

The only change they recommend this convention to make occurs in the third clause. They suggest that the last eight words of that clause be dropped, as they somewhat impair the meaning of the sentence.

The committee find that very little has been done so far in the setting up of this method, and in the cases where it has been attempted there has been a lack of willingness to enter into it on the part of associations of workmen on account of the clause discountenancing boycotting.

The committee recommend that all filial bodies be urged to make the attempt to establish this method, for then in case of trouble it cannot be charged that they have not tried to provide a means of avoiding strikes and lockouts.

Respectfully submitted,  
MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

On call, the secretary read from the third clause of report of Committee on Permanent Arbitration of 1888 (pp. 85-86, proceedings of second annual convention. INLAND ARCHITECT, Vol. XI, No. 2, page 26).

Mr. Phillips moved that the report be received and adopted and placed on file.

The motion was seconded and carried.

Mr. Phillips moved that clause three be amended to read as it is, leaving out the last eight words.

The motion was seconded and adopted.

W. H. Foulk, of Wilmington, Del., stated that Mr. Milo W. Lock, of Wilmington, Del., a personal friend of his, who was greatly interested in the subject of the apprenticeship system was

present and would like to hear the subject discussed. Mr. Foulk further stated that at the National Board of Trade Convention held in Chicago, they appointed a committee to act in conjunction with a similar committee appointed by this convention to memorialize and to make provision for a trade school; that Mr. Lock was the chairman of that committee. Mr. Foulk moved that Mr. Lock be heard on this subject.

Mr. Lock was called upon and addressed the convention as follows:

GENTLEMEN,—I have got but very few words to say in connection with the apprenticeship system. At the meeting of the National Board of Trade, at which I had the honor to represent the Wilmington Board of Trade, I introduced a resolution, which I will now take the liberty of reading, so that you may understand it.

"WHEREAS, Since the universal abandonment of the apprenticeship system for American youth in the manual arts and general mechanical industries there has been an ever-increasing necessity for the importation of foreign skilled labor by reason of the dearth of such labor in the home market, thereby closing to Americans legitimate paths of industry and means of livelihood, and checking the development of national skill and ingenuity, while forcing vast numbers against their natural aptitudes into the overcrowded avenues of professional and industrial pursuits; and

"WHEREAS, It is believed that the establishment of national mechanical trades schools, on the apprenticeship principle, would directly remedy the existing evils hereinbefore described; therefore, be it

"Resolved, That the National Board of Trade hereby requests the National Builders' Exchange to appoint a committee of three to confer with a similar committee to be appointed from said Board of Trade, for the purpose of maturing plans for the concerted action of the two bodies in bringing before the congress of the United States of America the subject of the establishment of national mechanical trades schools for apprentices and the exertion of all legitimate influences for such legislation and appropriations as shall lead to the founding of said schools as permanent government institutions."

This as coming from the Board of Trade is carrying coals to Newcastle. You, gentlemen, understand this matter far better than the National Board of Trade, but they are willing to do what they can to assist this National Builders' Association to frame some act to be submitted to congress. This committee of the Board of Trade will report at the next annual meeting of their Board in Louisville, in October next, and all they ask is that this committee be appointed to meet the committee of which I have the honor of being the chairman. The members of the committee are J. S. B. Stranham, of New York City, and Andrew Wheeler, of Philadelphia, and myself, the chairman. If you appoint a committee and the chairman of the National Board of Trade committee is apprised of such fact, meetings will be held with a view to frame an act that will cover this ground, and if it is so ordered by the National Builders, we should be glad to use our utmost effort to frame such an act. I thank you for your kind attention.

Assistant Secretary Harkness: Mr. President, I ask permission to read a resolution that has been handed to me by the New York delegation. It is as follows:

WHEREAS, It should be the inalienable right of American youth, without any hindrance, to have the privilege, if he so will, to learn a trade whereby he can in the future make an honest living for himself, and to enable him to become a useful member of society; be it

Resolved, That this convention use its influence and recommend to the legislatures of the different states of this Union the passage of a law making it a felony for any person or association to prevent or hinder an American youth from learning any trade or handicraft.

The resolution was referred to the Committee on Resolutions, and on motion the session adjourned until two o'clock P.M.

#### SECOND DAY—AFTERNOON SESSION.

The convention was called to order by the president at two P.M.

The unfinished business of the morning session, by the vote of the convention, was transferred until the evening session, in order that the programme for this afternoon session might be carried out as published.

James John, of Chicago, then read a paper upon "Plastering and Stucco Work." (Printed on page 17.)

A Member: I move that the convention return its thanks to Mr. John for the entertainment which he has furnished us and that his paper be published in the proceedings of this convention.

The motion was seconded and adopted.

Samuel J. Cresswell, of Philadelphia, read a paper on "Ironwork, Past and Present." (Retained by Mr. Cresswell for correction and not obtained by the stenographer.)

An address on "Masonry" was then read by John J. Tucker, of New York. (Printed on page 21.)

L. P. Soule, Boston: I move that a vote of thanks be extended to Mr. Tucker for his very able and interesting paper, and that it be printed as a part of the proceedings of this convention.

George Tapper, Chicago: Mr. President, I am one of the same handicraft with Mr. Tucker, and I want to extend to him my personal thanks for the paper and the reading of it today.

The motion was seconded and adopted.

The President: Gentlemen, Mr. John Trainor, the president of the National Association of Plumbers, with his executive committee, which is now in session, have called upon this convention, and it is with pleasure that I invite them to take seats on the platform with us.

Mr. Harkness read a letter from the Board of Education, as follows:

John S. Stevens, Esq.

PHILADELPHIA, February 13, 1889.

MY DEAR SIR,—Herewith find copies of the reports of Manual Training and Industrial Art School for distribution. These schools are open for examination and you are cordially invited with the members to visit them and see the work done in them.

Very respectfully, H. W. HALLOWELL, Secretary.

The President: The members of our convention are probably aware that in our public school system we have incorporated the manual training schools, and it is more particularly to this that the allusion is made, thinking it would be of interest to our convention.

An address on "Builders' Exchanges, Their Opportunities and Advantages," was then read by William H. Sayward, of Boston. (Printed on page 18.)

Charles W. Voshall, Rochester, N. Y.: Mr. President, I move you that the thanks of the convention be tendered to Mr. Sayward for his



able address, and that it be printed as a part of the proceedings of this convention, and I also ask for the adoption of the following resolution:

*Resolved*, That the address of Secretary Sayward be printed as a special paper for distribution to exchanges and in localities where exchanges do not exist.

The motion was seconded and adopted.

The President: Gentlemen, I might be permitted to say here that it was contemplated by the executive officers of the association to take what was termed a missionary tour through portions of our country where exchanges were in a weak condition, or where none exist, for the purpose of having such exchanges established; but for reasons that I suppose were very apparent to you when you heard the report of our treasurer, it was deemed inadvisable. As the next best thing to personal contact and the magnetism of his enthusiasm on this subject, we thought it would be wise for him to prepare this paper which you have listened to, and to send it out broadcast and let it prepare the way for him when he follows, as I trust he may be able to do the coming season. We want not only the new localities to be imbued with the ideas that are presented in this paper, but we want some of these older localities that are represented here to have new life, new vigor infused into them, and where their buildings have been put up on insecure foundations we want them torn down and the foundations laid broader and deeper and new structures erected. I think that such a paper as this to precede his presence will help accomplish that work, and you, gentlemen, can help do it also by your individual efforts. I thank you personally, Mr. Sayward, for the time and trouble that you have given to the preparing of this interesting paper.

There being considerable time before the hour of adjournment, the president suggested that the business set down to be considered during Wednesday morning session, which was not then finished, be now considered.

This suggestion was received with favor and the business proceeded with.

Report of Legislative Committee on Bureau for Furnishing Sureties on Builders' Estimates and Contracts was then read by the secretary, as follows:

REPORT OF LEGISLATIVE COMMITTEE ON BUREAU FOR FURNISHING SURETIES ON BUILDERS' ESTIMATES AND CONTRACTS.

During the past year the Legislative Committee have received a suggestion from a member of the national body, of great importance—one which demands most careful investigation. The situation is, briefly stated, as follows: On certain work contractors are required when submitting estimates, or closing contracts, to furnish bonds, and, in order to comply, are obliged to ask friends to become responsible for them. This necessity is always a most embarrassing one, and while, on the one hand, the contractor feels very delicate about asking the accommodation, on the other hand, his friends consent with great reluctance.

The suggestion referred to is that a bureau or department of the National Association be established, which may furnish such bonds under proper conditions and for a satisfactory consideration.

Your committee desire to report that after serious consideration of this suggestion they are so much impressed with the desire to see some such department established, through which contractors may secure bonds upon payment of proper compensation and under proper regulations instead of being dependent upon friends for accommodation—they are so thoroughly convinced that the peculiar position of the National Association affords the most complete and perfect machinery for carrying out the idea suggested to them—that they recommend that steps be immediately taken to establish such a bureau, and that the present convention take action to secure its adoption during the year.

They recommend that a committee be appointed to make a thorough investigation of the subject and prepare a plan in full detail for operation. This committee to report to the Executive Committee at as early a date as possible, they in turn to give the matter thorough study and report in print to every filial body, asking for approval of course suggested. Upon approval of two-thirds of all filial bodies, the Executive Committee be empowered to establish the bureau, or to report at the next annual convention.

Respectfully submitted,  
MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

Mr. Phillips moved that the report of the committee just read be received and placed on file.

A. McAllister, Cleveland, Ohio: Mr. President, I desire to offer a resolution for the appointment of a committee to meet this matter, and provide for the furnishing of bonds such as is referred to in that report.

*Resolved*, That a committee of five be appointed by the chair, authorized in behalf of this association to encourage the establishment of a company for the purpose of giving sureties on builders' estimates and contracts, with the understanding that the said company shall receive the official sanction and cooperation of the National Association of Builders, in consideration of which the said company shall agree to pay a proper percentage of its profits to the treasury of the said National Association.

The motion was seconded.

J. J. Weaver, Philadelphia, Pa.: I suggest it would be better to read the recommendation again submitted by the committee, in order that we may have both plans in our minds.

The recommendation of the Legislative Committee was read.

After general discussion, Mr. McAllister accepted an amendment, to include President Stevens and Secretary Sayward, making the committee seven, and the resolution, as amended, was seconded and adopted.

The president stated that the committee would consist of the following named gentlemen: A. McAllister, Cleveland, Ohio; George C. Prussing, Chicago, Ill.; J. M. Blair, Cincinnati, Ohio; Edward E. Scribner, St. Paul, Minn.; John J. Tucker, New York; John S. Stevens, Philadelphia, Pa., and William H. Sayward, Boston, Mass.

The report of the Legislative Committee on Uniform Size of Brick was read by the secretary, as follows:

REPORT OF LEGISLATIVE COMMITTEE ON UNIFORM SIZE OF BRICK.

The Legislative Committee have, in accordance with the vote of the last convention, conferred with the Executive Committee of the National Association of Brick Manufacturers, and report that in their opinion this association should take action to support the National Association of Brick Manufacturers in their attempt to secure a uniform size for brick throughout the country, so that to

speak of a brick in Maine shall convey the same meaning, in point of size, as when the term is used in California, or in any other state or locality in the Union.

If such a result can be secured it will certainly be of great advantage, not only to builders in preparing their estimates, but also to architects in making their plans and details.

We recommend that this association adopt the following resolution:

*Resolved*, That, whereas, the National Association of Brick Manufacturers has adopted a report recommending a standard size for common and pressed brick, this association hereby approves and indorses the same, and recommends all filial bodies to urge conformity to these sizes in their various localities. The sizes recommended are:

For common building brick, 8 $\frac{1}{4}$  inches by 4 inches by 2 $\frac{1}{4}$  inches.

For pressed brick, 8 $\frac{1}{2}$  inches by 4 inches by 2 $\frac{1}{2}$  inches.

Respectfully submitted,  
MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

Mr. Phillips moved that the report be received, and that the resolution thereto attached be adopted.

The motion was seconded.

George C. Prussing, Chicago: Mr. President, I would not like to see this perpetuated in a more permanent form. This question of uniform size of bricks, I submit, is nonsense. You cannot make any uniformity by law now any more than you could in the years gone by, and the brick manufacturers, in their wisdom, in their resolution, talk about a standard size, and not a uniform size, and I therefore suggest that the word "uniform" be changed at once to "standard," for that is what the brick manufacturers request, and this is merely an indorsement of action taken by them. I submit that there seems to have been some misapprehension as to the sizes.

Mr. Ittner: There seems to be some confusion about this business. I am a member of the National Brick Manufacturers' Association, and I was present at the meeting where this size was established, and this is not the size, if I am correct, and I merely wish to state my understanding of that size.

Mr. Weckler: I have a memorandum in my pocket of the size adopted at the Chicago convention as the standard size of brick. Pressed brick, two and three-eighths by four and eight and a quarter. The only difference is in the length of the pressed brick.

Mr. Ittner: Mr. President, I think, perhaps, there is even some mistake in the note of our worthy friend to the left. The point made by Mr. Prussing is a very tenable one. It is very pertinent that you should correct it from eight and three-eighths to eight and a quarter, as has just been stated, but then you leave the width as it is, and you will see it will not work; you will have a head joint that is altogether out of proportion to the bed joint. If I understand it aright, the width of that brick was four inches and a quarter, and the length eight inches and a quarter and two and a quarter for a common brick. I think, perhaps, the best way would be to have this matter pass over and allow the Brick Manufacturers' Association to arrive at an intelligent conclusion on that question before it comes to this national body. There is a confusion existing all around. The corresponding secretary of the National Brick Manufacturers' Association, after I got home, wrote me a letter, saying there was some confusion about it and wanting to know if I knew what it was. I will swear I do not know what it was. I know this much, that the National Association of Brick Manufacturers did not give it that thought and consideration that they ought to have done. I move, with due respect to the National Brick Manufacturers' Association, that this question be laid over to be considered at our next annual convention. In the meantime, the National Brick Manufacturers' Association will have an opportunity to take more definite action on the subject.

Mr. Blair: I was present at the time the National Brick Manufacturers' Association adopted something. I agree with Mr. Ittner, and I want to make it more forcible, if possible, by adding to what he has said. It was my intention from the start to oppose the resolution because it was not definite. It is right and proper that the National Association of Brick Manufacturers should fix the matter definitely, and I think it had better be postponed until a subsequent meeting. I move it be referred back to the Legislative Committee.

A vote was then taken on the resolution to refer the matter back to the committee, which was carried.

On motion, at five o'clock, the convention adjourned to meet at eight o'clock P.M.

SECOND DAY—EVENING SESSION.

The convention was called to order at eight o'clock P.M. by the president, and the roll was called by Assistant Secretary Voshall.

The consideration of unfinished business on the programme for the morning session was proceeded with.

The report of the Committee on Apprenticeship System was read by Assistant Secretary Voshall, as follows:

REPORT OF LEGISLATIVE COMMITTEE ON APPRENTICESHIP.

The Legislative Committee have thoroughly reviewed the method approved at the last convention, to take the place of the old system of apprenticeship, and recommend a slight change of wording in the second clause, and an important change in the third clause.

They herewith present the whole method as they recommend its modification, the changes proposed being printed in italics.

*Method Approved by the National Association of Builders*

to establish the right of any person to be known as a regular journeyman in the building trades.

*First.* The serving of a regular course of instruction in a mechanical trade school and graduating therefrom with a certificate of proficiency granted by the same, under rules and regulations approved by a committee of master mechanics, who may unite in the management of the said school.

*Second.* The preliminary training in the trade school to be followed by a term of practice with an employer on actual work, this term to be at least one year less than the usual term of apprenticeship by virtue of the holding of a certificate of proficiency granted by a mechanical trade school. During this term of service the young man to be known as a "junior."

*Third.* Finally, completion of the education of the mechanic to be acknowledged after a proper examination has been passed before a board of examiners



appointed for the purpose by the association of builders to which the employer may belong, or to whom the junior may apply for examination by the issuance of a certificate by the said association, which shall state that the holder has passed through the prescribed course at the trade school, and the term of practice with an employer (name and location given) with satisfaction and credit, and is entitled to be received by all builders as a journeyman.

Any young man who has received the "certificate of proficiency" from the trade school, may apply for the second examination before the board of examiners, and if adjudged by them to be old enough, strong enough and competent, may receive a special certificate, which shall state the facts in the case.

The committee also recommend that this method of the National Association be persistently agitated, and that a special committee be appointed to have the matter in charge.

MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

A. S. Reed, Wilmington, Del.: Mr. President, I would like to ask for information: I would like to know what the method would be in teaching particular branches of the mechanical trades in a trade school. I am a bricklayer, and I am anxious to know what mode will be pursued in teaching a bricklayer the first rudiments in a trade school.

The President: I have my ideas on that subject, and I will express them to you. You want to know how we would teach a boy to be a bricklayer in our school. First, I would have a lecturer to teach him by lecture all that could be taught him in regard to his business, or the materials connected with it, and I would have the lecturer tell the boy what sand is made of and all about sand; I would have him tell the class what lime is made of and how it is made; I would have him tell the class what bricks are made of and how they are made; I would have him tell them all about cement, and explain to them the nature and combination. By the time the boy was through with those lectures he would know why you could not make mortar—I am an iron man and I do not know much about bricklaying, but I will tell you all I do know about it—the boy would then know why you could not make good mortar out of ashes and lime, or out of loam and lime. He would know why you had to use gravel and why you had to use sand. After the boys had been taught to that extent, I would have them taken to a limekiln and let them have an object lesson, let them see how it was done. I would have them taken another day to a brickyard and let them see how bricks are made. I would have them taken to one of our terracotta establishments and let them see how terracotta is made. I would suppose, then, so far as that was concerned, the boys' education was completed theoretically. Now comes the question, what shall we do with them? I would have, then, a first-class journeyman mechanic, a journeyman bricklayer, such a man as you would make one of your foremen to take charge of your buildings, and I would have him take these boys, a class of, say six, or eight, or ten, and say to them, "Boys, you have been told by your professor how mortar is made, now I am going to show you." Then he would call up his laborer and say, "Here, Billy, bring so many bushels of lime and so many bushels of sand," and he would bring them and put them down on the ground. Then the teacher would tell them, "Now, when you put water on this lime, it slacks it. Now, we are going to put water on this lime and we will see it slack." Then he would mix that up and it would make mortar, and he would be talking to them and all the time they would be seeing. That finished, he would say to the boys, "The first thing you have to learn is how to use a trowel. Here are the trowels. Now, William, you put a shovelful of mortar on each of those boards, and each one of you boys take a trowel and I will show you how to spread this cement and mix the mortar," and keep the boys practicing at that, and say, "George, that ain't the way; do it this way." They would soon learn how. The next day he would come there and say, "Boys, I am going to build a wall for you six feet high, or seven feet high, and thirteen inches thick, and I want you to see how I do it." He would dig out, and commence to lay it out, and talk to the boys as he went on. "Boys, we spread our mortar this way; we take up our bricks this way; this is the way we put a leader; we run up three courses here and three courses there, and we use this plumb-bob to see that it is plumb, and then we strain a line over this way and lay a number of bricks in proportion. That is the way we will do it." Then he would tell the boys how he was going to strike the joints. He would build that wall with those boys looking at him. "Do you understand that, boys?" "Yes." Then he would say, "William, have this wall torn down and everything cleaned up. Now, boys, tomorrow morning we will go to work," and then the next morning he would say to the boys, "I want each one of you to lay out a wall like I did yesterday. You saw me do it, and I want you to do it." They would start in and he would watch them. "John, don't pick up your bricks that way; this is the way. Bill, you are not doing as I showed you; run that corner up and run this up. George, that is not the way to hold the plumb-bob; hold it this way, and strike your joints this way." Do you think those boys would learn anything? I think in six months' time I would have pretty good bricklayers out of those boys. After that I would teach them how to put a wall up; I would take them on pressed brickwork, and I would teach them how to run arches, and I think those boys would learn more under six months' instruction of that kind than they would in six years in your building, with nobody to tell them, and just to pick up what they wanted.

Marc Eidlitz, New York: Mr. President, I will say for the information of the gentleman that if he will go to New York next week, on Monday, I would make an appointment with him, and take him to Mr. Auchmuty's trade school, and he can see the boys build walls twenty or thirty feet long, and build arches and piers one day, and the next day they are all torn down.

A. S. Reed, Wilmington, Del.: I want to thank you, Mr. President, for your very lucid explanation. I am satisfied that a boy would learn more in six months, and get more real good knowledge than he gets in four years very often, because he starts at the foundation, and

he gets the rudiments, and he knows all about it. I am perfectly satisfied that he can learn it, and that it is the proper way to start.

Mr. Ittner: Mr. President, I desire to ask for a little information. I am a brickmaker, an educated apprenticed bricklayer, and I heard you say in the opening of your remarks that you were not a bricklayer, but that you were an iron man. I want to know where you got your education.

The President: Your president received his education in the public schools of the city of Philadelphia, and graduated from the high school on a Thursday—I won't tell you how many years ago—and on the next Monday he put on his colored shirt and went down to the blacksmith shop, and the first thing he did was to go out and buy himself a leather apron and put it on and go to work.

Mr. Ittner: I meant your education as a bricklayer.

The President: I beg your pardon. I never studied the art.

Mr. Ittner: Mr. President, I wish to say here for the benefit of the members of this convention, so far as my knowledge is worth anything, I have been at the business since I was a boy seventeen years of age, and I do not believe I could have made a better explanation of the way in which a young boy could learn a trade at a trade school, than the president has done, and that is the reason why I put the question in good faith. I have had the opportunity during our session to compliment our good president on his mode of dispatching business, and I also asked the question whether he belonged to any legislative body, and I was told no.

The President: At the Builders' Exchange I learned all this. The Builders' Exchange is an educational school. I might give you a little bit of illustration as to what the Builders' Exchange can do. Brother Sayward did not say that although he knows it. I venture to say there are members of our exchange in Philadelphia who, a few years ago, would have felt that they could not have gotten up and said ten words before ten men; they would want to sink through the floor; and yet, those men can today get up and talk for half an hour before hundreds of people, and they are glad to do it and express themselves in a way that nobody need be ashamed to listen to, or they for the speaking. The builders' exchanges are educational schools. We become educated. I know what I do about bricklaying by the use of my eyes and brains in connection with builders throughout the city of Philadelphia, and I know more about it from having given thought to the subject as to how to educate our boys in this work.

The subject was further generally discussed and much general information relating to trade schools given, after which C. C. Dewstoe, of Cleveland, Ohio, moved that the first, second and third sections of the report of the Legislative Committee on Apprenticeship be adopted, and then as a whole, which was so ordered.

W. H. Foulk, Wilmington, Del.: Mr. President, I had hoped that some gentleman would offer a resolution to appoint a committee to act in conjunction with the Committee of the Board of Trade. I did not want it to come from our exchange. I was waiting very patiently to hear some gentleman make a resolution of that kind.

Secretary Sayward: I move that a committee of three be appointed from this association to confer with a like committee from the National Board of Trade on the matter of petitioning congress to appropriate moneys for the establishment of mechanical trade schools.

The motion was seconded and carried.

The President: As the Committee of the National Board of Trade consists of a gentleman from Wilmington as chairman, one from New York City and one from Philadelphia, in order that they may all be in near connection one with the other, I will name Mr. James Sharkey, of Brooklyn; Mr. William Harkness, Jr., of Philadelphia, and Mr. Marc Eidlitz, of New York, to act in connection with that committee. The secretary will please send word to the National Board of Trade to that effect.

The report of the Legislative Committee on Insurance Against Accidents to the Public was read by Assistant Secretary Voshall, as follows:

#### REPORT OF LEGISLATIVE COMMITTEE ON INSURANCE AGAINST ACCIDENTS TO WORKMEN AND OTHERS.

At the first convention of the National Association, the question of insuring workmen against accidents was discussed upon a resolution offered by the delegation from New York, the purport of which was, that it would be desirable to perfect a plan whereby the workmen upon buildings in process of erection would be certain to receive some sort of indemnity in case of accidents, they to participate with the owner in payment of premiums on such insurance.

The committee appointed at the first convention found that there were companies existing who would issue a policy of insurance by which builders could protect themselves from liability in cases of accidents to workmen. This method was simply shifting the liability from the shoulders of the builders to the shoulders of the insurance companies, and while satisfactory enough from the standpoint of protection to the employer, did not cover the idea comprehended in the original resolution.

They also found that it was possible to secure through these same companies certain other insurance which would give a stated indemnity, in quite small amounts, to cover the men whether at work or not, and in their report, made at the second convention, they recommended this plan as worthy of trial.

The Legislative Committee have made further study of this important question during the past year, and in the course of their investigations have found that a practical effort in the general direction of the form of insurance contemplated has been made by a certain firm of architects in the city of Chicago.

The method adopted by this firm seems to be worthy of careful consideration, it being an illustration of what can be accomplished, and suggestive of further and more complete protection to the employer, combined with indemnity to the employee.

The plan of action taken by these architects (we are permitted to state that it is the firm of Adler & Sullivan, of Chicago) is briefly stated, thus:

In the case of two particularly large buildings the architects were made trustees in behalf of all persons employed thereon, The Employers' Liability Assurance Corporation of London issuing a specially prepared "blanket" policy, covering everybody employed from the moment he came to the building.

The indemnity guaranteed was, in case of death by accident, a payment of (\$2,000) two thousand dollars to the heirs of the person killed, and in case of injury a payment of two-thirds wages of person injured during time of disability; this payment, however, not to extend beyond (\$3) three dollars per day.

The premium demanded by the company was quite heavy (two per cent on the pay-rolls of the various contractors, which the said contractors were required to pay immediately after each regular pay-day), but the risk taken by the company



was a large one, and the conditions peculiar, for a man injured immediately after coming to the building for the first time would be entitled to indemnity, although his name had not even gone upon the pay-roll, and therefore no premium whatever paid on his account.

The policy covers only such men as are engaged in or about the building, in the discharge of their regular duties and during regular working hours.

This arrangement has apparently worked to the satisfaction of all concerned, although the architects speak of the payment of premiums by the contractors as being somewhat burdensome, for the reason that they "pay out large sums from which they get no return, except, perhaps, in the consciousness that they have been instrumental in securing a moderate provision for their men in case of injury."

It occurs to your committee that this plan has some features which are better than the method recommended a year ago, inasmuch as it is simpler and does not pretend to cover the men except when actually engaged on or about buildings in process of erection, and gives a more substantial indemnity.

They are of the opinion that it may be arranged so as to combine protection for the employer against claims for damage, *together with* the payment of insurance to the workmen.

Their plan would be, as far as the placing of the insurance is concerned, and the payment of premium therefor, virtually the same as that of Messrs. Adler & Sullivan (which may, of course, be so extended as to include workmen engaged at shops and yards); but beyond that, to secure immunity to the employer from claims for damage, it should be a part of the consideration with all employees that a percentage of their wages will be retained every pay-day to secure this insurance, the employer simply acting as their agent in placing it and paying the premium, and it should be a further consideration that they will accept the indemnity under it, as an exemption to the employer from any claim on account of accidents.

The wages under such a system as this would naturally become larger to the extent of the premiums paid, but contractors need not feel it burdensome (as Messrs. Adler & Sullivan apprehend they may), for they can readily add the necessary percentage to cover the premiums, when making their estimates.

It may be argued that this is a plan for *compulsory insurance*, but as it really would not reduce the wages of the workmen, and would, on the other hand, make them feel somewhat more independent than if it were done solely as a charity by the employer, and as the employer would be relieved from the constant threatening of suits for damage when he is in no way at fault, it seems as if the result was worthy of the means taken to attain it.

Your committee understand that a system somewhat similar to this prevails in certain foreign countries as a part of the common statute law, but while deprecating any attempt to secure legal enactments to this end, they hope that the convention will take action to establish some such custom as this which they have outlined.

As a suggestion, they recommend that the action taken be, a direction to the Executive Board to open correspondence with the accident assurance associations in this country, secure the adoption of a form of policy of the character suggested, and when secured have all filial bodies fully and properly informed in relation to it. Filial bodies should also be informed of the proper and legal methods to follow in setting this insurance in operation so as to make the exemption of the employer from claims sure and certain.

In addition to the insurance of workmen, your committee also urge that the Executive Board be also directed to endeavor to secure the adoption of a form of policy with accident associations which will protect the builder from damages occurring from accidents to the public.

In this connection they would call the attention of the association to the effort being made to arrange for this sort of insurance by the Fidelity and Casualty Company of New York.

Respectfully submitted,  
MARC EIDLITZ,  
WILLIAM HARKNESS, JR., } Committee.  
E. L. BARTLETT,

It was moved and seconded that the report of the committee be received and the recommendation of the committee be adopted.

The motion was seconded and carried.

Secretary Sayward: I move that the secretary be directed to issue proper notice prior to the next annual convention of an amendment to the constitution to the effect that any person who shall serve a term as president of this association shall by virtue of that service become a permanent director of this association in addition to the directors already provided for.

The motion was seconded by Marc Eidlitz, of New York, and carried.

Richard Deeves, of New York, read an interesting paper upon the apprenticeship system.

W. H. Foulk, of Wilmington, Del., moved that a vote of thanks be tendered to Mr. Deeves for his essay, and that it be spread upon the journal of the convention.

The motion was seconded and carried.

Secretary Sayward stated that he had received a letter from Denver, stating that certain letters had been received from him, and saying, "We are very much interested in the National Association, but our Exchange has as yet been unable to do anything in that direction. We would be very much indebted if you would send us reports of what was done at the convention, and will be represented at the next."

Secretary Sayward stated that he had also received a letter from Wichita, Kansas, wherein they also say that the Builders' Exchange of Wichita has the question of joining the National Association under consideration, and will probably decide favorably at an early date. He stated that he had also received a communication stating, "Our old friend, D. J. A. Sullivan, of Charleston, S. C., sends his regards to us all, and that he is very sorry he is unable to be present, and says, 'Draw on me for the assessment for the next year. Kindest regards to Mr. John Stevens and all the other officers.' He also incloses stamps to send the report of the convention."

On motion, adjourned until Thursday morning, February 14, at 10 A. M.

### THIRD DAY—MORNING SESSION.

At 10 o'clock President Stevens called the convention to order. Assistant Secretary Voshall called the roll.

The president introduced Mr. John McArthur, Jr., who read an address prepared by O. P. Hatfield, Esq., of New York, treasurer of American Institute of Architects, on "The Relation of the Architect to the Builder." (Printed on page 16.)

John J. Tucker, New York: Mr. President, it seems to be out of place, perhaps, for the representatives of New York, but I deem it of such vast importance that I cannot afford to let the opportunity go by, to at this stage rise and move a vote of thanks to Mr. O. P. Hatfield for the very able and instructive paper which has been read. It affords me pleasure to supplement the motion with the statement that

it is due, in a large measure, to this association that we are getting such papers that are going to prove of such vast importance to the building fraternity of this land. I am only too glad the opportunity is afforded me to make the motion.

Secretary Sayward: In seconding the motion offered by Mr. Tucker, of New York, I would like to add that the thanks of this association be tendered to Mr. McArthur for the reading of the manuscript of Mr. Hatfield, of New York.

John J. Tucker: I will add that a copy of the address be printed in our proceedings for the benefit of this association, and that we deem it of so much importance that a pamphlet form be printed and be disseminated throughout the land, so that all builders and architects may receive a copy for their guidance in the future.

The motion, as amended, was seconded and carried.

The President: I feel I can congratulate the builders of New York City on having such complete plans and specifications prepared for their use. No doubt Mr. Hatfield has given us a resumé of what they do in New York. Not exactly what the architects do, but what the architects of New York ought to do. I am also glad to see that there are a few of our Philadelphia architects present, and I trust, without any further comments, that they will do likewise. The next order of business will be an address by Mr. George Eastburn, M. A., on the metric system. Mr. George Eastburn has made a great study of this matter and is rather enthusiastic on the subject, and I think we all ought to be. It has often impressed my mind that if we, in our good judgment, thought it wise to adopt the decimal system, and I think no one will doubt the wisdom of such a course who has ever had to calculate in pounds, shillings and pence, it would also be wise for us to adopt that system in connection with our weights and measures. The old-fashioned way of adding up farthings and dividing by the number, and leaving the remainder and carrying the other over, and so with the pence and shillings, is about the same thing we have to do today with our feet and inches. We add up inches and divide by 12, set down the remainder and carry over, etc. It seems to me it would be a very wise and useful thing, and would expedite business if we could only have the same decimal system applied to our calculations and measurements. Professor Eastburn will tell you more about it than I can.

Professor Eastburn having been introduced by the president, and having exhibited to the convention some of the apparatus, together with a chart used in illustrating the metric system, proceeded to read his address. (Printed on page 23.)

George C. Prussing, Chicago: Mr. President, I move that a vote of thanks be tendered to Professor Eastburn for his very interesting paper, and I desire to say that it might be fitting for this body to take the same steps taken by other bodies to correct the absurdities which now exist, and I would move you that a committee be appointed exactly in the same language as that given by the lecturer as coming from the Western Association of Architects, so that the committees will have the same powers as granted by the Western Association.

The motion was seconded and adopted.

Assistant Secretary Harkness: I have an order to read directly in the line of the motion of Mr. Prussing, of Chicago. It is as follows:

*Ordered*, That the secretary of this association be directed to correspond with other organizations interested in the adoption of the metric system of weights and measures for the purpose of coöperating with them in any efforts they may be making for the establishment of this method of weighing and measuring.

The order, as moved, was seconded and adopted.

The President: You will now have the pleasure of listening to an address of Col. Richard T. Auchmuty, of New York, founder of the trade schools of that city. I hardly know in what terms to introduce the colonel to you, but to our Philadelphia Exchange, or to our Boston Exchange, he needs no introduction. He is the gentleman, not being satisfied with the work that he is doing in New York with a view of educating the American youth there in the mechanical business, he is so generous that he has come to Philadelphia and has gone to Boston, and has offered to the exchanges in those cities a large sum of money to enable them to start the same kind of trade schools.

The address on trade training by Col. Richard T. Auchmuty, of New York, founder of the mechanical trade schools of that city, was long and listened to with much attention.

The President: It does my heart good to witness the enthusiasm with which you have received Colonel Auchmuty's address that he has just delivered. I feel in my heart that you cannot do him too much honor for the great work to which he has devoted his life and the encouragement that he is giving to others to follow in his footsteps. If the name of the Master Builders' Exchange of Boston or Philadelphia is to be called blessed because they do the work that he teaches them to do, what shall be accorded unto him and his name?

J. J. Weaver, Philadelphia: I move that the address be not only printed in our proceedings, but be printed separately for distribution among the several exchanges of the country.

George Tapper: It gives me great pleasure to second the motion of my brother from Philadelphia. I hope it will be carried unanimously, and that it be printed and distributed to every exchange in the country.

The motion was carried.

Assistant Secretary Voshall read the following resolution:

*WHEREAS*, It has come to the knowledge of this board that strenuous efforts are being made on the part of labor unions in this and other states to have the conspiracy laws repealed, therefore, be it

*Resolved*, That the delegates to the convention at Philadelphia be instructed to urge upon delegates from other states and cities the necessity of using their influence personally and as exchanges to the end that the conspiracy laws of the different states will not be tampered with.

Submitted by the delegates of the Master Builders' Exchange of Syracuse.

John Moore, Syracuse: I move that the resolution be referred to the Committee on Resolutions. We sent a resolution to the legisla-



ure of the State of New York, whereby we endeavored to control our business by local act, and the resolution was presented from the organization at Syracuse, so that all you gentlemen here, representing different organizations, should feel an interest in protecting yourselves as against the labor unions of this country.

A member from New York: I would state that the bill is already slated to go through, and unless some effort is taken, it will be passed by the majority of the New York State Legislature. The bill can be killed by proper action, but it may be carried through on account of inaction.

At the request of the president, Professor McAllister, superintendent of the public schools of Philadelphia, addressed the convention, and described the Philadelphia Manual Training School.

A member from Cincinnati: Mr. President, we seem to be here this morning in connection with trade school matters. I desire to state that Cincinnati has already gone into the good work; that at a meeting of the Commercial Club held last week in our city \$30,000 were subscribed in one hour.

Mr. Prussing moved that a recess of half an hour be taken, which motion was seconded and carried, and the convention then adjourned until 1:30 P.M.

### THIRD DAY—AFTERNOON SESSION.

At 1:30 P.M. President Stevens called the convention to order. The first business before the convention being the report of the Committee on Resolutions Mr. A. McAllister, of Cleveland, Ohio (chairman), reported as follows:

"The resolution regarding the appointment of a committee to take into consideration the procuring of the organization of a fire insurance company to assure builders' risks, under the auspices and patronage of the Builders' National Association, was referred with a recommendation that it be passed."

The committee reported in favor of the adoption of the resolution presented by the New York delegation in reference to legislation in the different states of the union, making it a felony for any person or association preventing or hindering any American youth from learning any trade or handicraft.

The committee reported in favor of the adoption of the resolution proposing that the thanks of the association be tendered to the Hon. Benjamin Butterworth, of Ohio, for his manly defense in congress of the United States of the rights of American citizens.

The committee reported back the resolution adopted by the Builders' Exchange of Cincinnati, asking that the association ask the authorities at Washington to let the government work in separate branches, recommending that such action be not taken, as it seemed to be not a matter upon which the convention ought to tender advice to the government.

As a substitute for the resolution introduced by the Kansas City delegation, the committee reported the following:

WHEREAS, It sometimes happens that contractors for the erection of buildings in places other than those in which they may have their headquarters, shall conduct their operations as to injuriously affect the relations existing between employers and employed in such places, therefore,

Resolved, That the National Association of Builders recommend that affiliated bodies instruct their brothers when doing business in parts of the country other than those in which they have established their headquarters, that they consult with the local association where the work is being done as to the methods obtaining there between employers and employed, and conform, as far as may be possible, to the customs of such local association.

The committee reported in favor of the adoption of the resolution introduced by the Syracuse delegation, regarding labor unions.

The resolution offered by the Chicago delegation regarding contractors on public work, was reported favorably upon by the committee, and while several of the recommendations of the committee were discussed, all were adopted as reported upon except this. A long discussion followed, which was largely a repetition of that upon the lien law. Its adoption was ably urged by Mr. Prussing; Mr. Purington and others claiming that its adoption was contrary to the expression of the convention regarding the lien law. The resolution that the report of the committee be received and the resolution (of the Chicago delegation) adopted, was put to vote and defeated.

The report of the committee on time and place of next convention, and nomination of officers, was called for.

John Rowson, secretary of the committee: Your committee appointed to select time, place and selection of officers for the ensuing year, beg leave to report as follows:

Recommending that we hold our next convention in the city of St. Paul, Minn., on or about the 20th day of January, 1890, subject to the call of the president.

Also recommending the following selection of officers:

For president, Edward E. Scribner, of St. Paul, Minn.  
First vice-president, John J. Tucker, of New York, N. Y.  
Second vice-president, A. McAllister, of Cleveland, Ohio.  
Secretary, William H. Sayward, of Boston, Mass.  
Treasurer, George Tapper, of Chicago, Ill.

L. P. SOULE, of Boston, *chairman*,  
JOHN ROWSON, of Grand Rapids, Mich., *secretary*,  
WILLIAM H. STEWART, of Cincinnati, Ohio,  
ASHER BASSFORD, of St. Paul, Minn.,  
W. A. RUTTER, of St. Louis, Mo.,

Committee.

Mr. E. L. Bartlett, of Baltimore, Md., moved that the time and place named in the report be accepted and adopted, as the time and place for the next annual convention, and that the gentlemen named in the report of the committee be elected to the respective offices by acclamation.

The motion was seconded and carried unanimously.

President Stevens expressed his pleasure upon the election of the several officers, and called upon president-elect Scribner, first vice-president elect Tucker and second vice-president McAllister to express their willingness to fill their respective offices. These gentlemen responded in turn, each thanking the convention for the honor conferred.

In response to the call for naming of directors for the ensuing year, the following names were announced:

DIRECTORS.—E. L. Bartlett, Baltimore, Md.; L. P. Soule, Boston, Mass.; E. N. Hager, Buffalo, N. Y.; D. A. J. Sullivan, Charleston, S. C.; George C. Prussing, Chicago, Ill.; J. M. Blair, Cincinnati, Ohio; R. H. Jenks, Cleveland, Ohio; W. J. Stapleton, Detroit, Mich.; William Mellor, East Saginaw, Mich.; John H. Hoskins, Grand Rapids, Mich.; James E. Shover, Indianapolis, Ind.; W. W. Taylor, Kansas City, Mo.; Garrett Dunck, Milwaukee, Wis.; Barclay Cooper, Minneapolis, Minn.; Marc Eidlitz, New York, N. Y.; William Harkness, Jr., Philadelphia, Pa.; Richard Hayward, Providence, R. I.; William H. Ganslire, Rochester, N. Y.; Frank Clark, Sioux City, Iowa; John DeClue, St. Joseph, Mo.; Daniel Evans, St. Louis, Mo.; Matt Breen, St. Paul, Minn.; William Dickinson, Syracuse, N. Y.; D. C. McCarty, Washington, D. C.; W. H. Foulk, Wilmington, Del.; E. B. Crane, Worcester, Mass. Directors for Brooklyn, N. Y., and Hartford, Conn., were not appointed.

Asher Bassford, St. Paul, Minn.: Mr. President, I have received a response to a message sent to our president after it was ascertained that our next place of meeting was to be in St. Paul, and with your permission I will read it:

ST. PAUL, February 14, 1889.

Asher Bassford, Philadelphia:

St. Paul appreciates the honor conferred upon her, and will open wide her gates to welcome the convention of 1890. If the usual temperature prevails we will display our banana gardens, and if the eastern blizzard strikes us we will build an ice palace. In any event, we will make the North, the South, the East and the West feel at home with us. Thank the convention for naming St. Paul.

Signed by the president of the St. Paul Exchange.

In behalf of the Exchange of St. Paul, I thank this convention for naming St. Paul as the place for the next convention. I do not think I can say or do more than to freely and fully indorse all the president has said in his dispatch, with the exception of the banana gardens. I cannot indorse that. I expect to meet you one and all in St. Paul next January, and it will be our aim to make it so agreeable that no one will regret having paid us a visit.

Mr. A. J. Campbell, of New York, stated that he had been appointed the chairman of a special committee, which was not called upon to make a report, but that the committee had attended to its duties, and it gave him great pleasure now to present the badges to President Stevens, George C. Prussing and J. M. Blair, the three ex-presidents of the association, which he did in a well-composed and comprehensive speech, which was responded to by the recipients of the handsome tokens of past presidentship.

The following resolution was then read by Mr. Blair, of Cincinnati, in behalf of his delegation:

Resolved, That the delegates to the third annual convention of the National Association of Builders, assembled in the city of Philadelphia, hereby confess their inability to express a proper appreciation of the hospitality shown them by the Master Builders' Exchange of this city.

That the "brotherly love" for which this metropolis has always been noted, has been manifested on this occasion in such exuberant, overwhelming fashion that we feel as if the "high tide" of the art of entertaining has here been reached, and that it would be useless for other cities to imitate, much less to equal it.

To the officers and members, therefore, of the Master Builders' Exchange of Philadelphia, we extend our simple thanks—we recognize, under all the outward manifestation of hospitality, that which we value much more highly, namely, friendship. Friendship, that quality which illumines the pathway of life, smooths away the asperities of business, and makes the conduct of all our affairs more even, just and true.

Builders of Philadelphia, we are your friends, and you are ours. To whatever city of this country you may go, in which exists a filial body of this association, be assured that you will find a welcome equal in fervor, if not equal in the magnificence of manifestation, which you have extended to us.

The resolution was seconded and carried by a standing vote.

Three cheers were then given for the Master Builders' Exchange of Philadelphia.

Mr. Harkness announced that there would be a meeting of the board of directors for 1889 held in the headquarters of the Boston delegation, room 16, Continental Hotel, at 4:30 P.M.

Thomas R. Bentley, of Milwaukee, moved that Colonel Richard T. Auchmuty, of New York, be made an honorary member of this association.

The motion was seconded and adopted.

Mr. Harkness stated that the Builders' Association of Pennsylvania desired to make the first contribution to the next convention, to be held at St. Paul; that they desired to know the address to which they should send the banner now hanging across the street.

Secretary Sayward, on behalf of the Boston delegation, offered the following resolution:

Resolved, That the thanks of the association be extended to the press of this city for the full and complete reports they have given of the proceedings of this convention.

The motion was seconded and adopted.

Mr. Isaacs, of New York, called a meeting of the delegates in room No. 4, Continental Hotel, to confer on the matter of the attempt to repeal the conspiracy laws, at 4:30 P.M.

The President: I wish, on behalf of the Builders' Association, to thank the gentlemen of the convention very kindly for their attendance at this time. You have come from various sections of our country, many of you living thousands of miles from here; but we are glad to welcome you, and if we have done that which has ministered to your comfort and enjoyment while we have been attending to the greater and more important matters of business that has come before the association, we are only too glad.

John J. Tucker, New York: I desire to thank the gentlemen of Pennsylvania for the handsome compliment that was paid me by this beautiful bouquet which was presented to me this morning. On behalf of the New York delegation I thank them for it, and, with their permission, I ask that it be extended and delivered to the lady of our worthily retiring president, Mrs. John S. Stevens.

On motion, the convention adjourned *sine die*.



# THE INLAND ARCHITECT AND NEWS RECORD

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## THE INLAND ARCHITECT AND NEWS RECORD.

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### CONSTRUCTION, DECORATION AND FURNISHING

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COMMITTEE TO COLLECT LEGAL DECISIONS RELATING TO BUILDING INTERESTS:  
Chas. C. Hellmers, . . . . . St. Louis, Mo.

Regarding  
a new  
Supervising  
Architect.

A change in the government administration has caused the subject of the appointment of a new supervising architect to be agitated, and the names of several prominent architects have been put forward to fill that position. Should a change occur, it will be time enough to discuss the appointment of a successor. If we read the President's policy aright, he seems to be inclined to make appointments and vacancies from a business rather than a political policy, and, meanwhile, we hope that this spirit will lead him and congress to see the unbusiness-like and detrimental policy of sustaining the present government practice in the designing and erection of our public buildings, and adopt in its place the plan urged by the architectural associations.

Third Annual  
Convention  
of Builders at  
Philadelphia.

The progress and action of no other association has been watched with more attention by the class which it represents, than that of the National Association of Builders since its organization in Chicago two years ago. Through a strong necessity for its existence, and with men of phenomenal sagacity and ability to plan its foundations and project its policy, it seemed to reach maturity with its first convention. The architectural associations had already discussed measures looking to the better regulation of architectural and building practice, and these efforts were at once augmented by this association of representative builders. The first fruits of this mutual endeavor is the standard form of contract; and the adoption of a metrical system of measurements, the establishment of trade and manual training schools, or the passage of more equitable lien laws will be the product of further united effort, effected through the joint work of builders in conjunction with the architects. As the first convention of the National Association of Builders was the culmination of almost a year's assiduous labor on the part of its organizers, each convention since has received the same preparatory attention, and the third annual meeting, held at Philadelphia, was not an exception to the rule, and no association ever transacted a larger amount of business within a given time and with less confusion.

Unjust  
Criticism  
by the  
Press.

While a large number of the architectural and building journals of the country were represented in that meeting, the editors of but two were in attendance in person, and but one stenographical report was taken and this was printed in abstract in a special edition of THE INLAND ARCHITECT. While the able secretary appointed three assistants, who had instructions to present to the press every facility for obtaining accurate reports, it was rather surprising to find in a leading architectural journal all their preparatory work and careful arrangement, the self-sacrificing work of the secretary and other officers, ignored, and the convention severely criticised for its lack of organization and definite purpose. Now, in noticing this and other inaccurate and damaging reports mentioned elsewhere, it is not with a wish to be anything but courteous to our contemporaries, or because in it we see a chance to be captious. Such is not our present intention or past policy, but we do stand upon the honesty of our convictions, and seek to right or condemn what we know to be wrong, especially where our position, as in the case under consideration, is one of personal knowledge as against newspaper report. We are glad to see that



the journals at fault have since printed corrections, but this cannot repair the damage done by inaccurate reports, and it is fortunate that those involved, both individuals and associations, are too well known and appreciated to be made or destroyed by avowed hearsay criticism.

**A School of  
Architecture  
to be started  
in Chicago.**

We have more than once called attention to the need for the establishment of a school of architecture in Chicago, and but two months have passed since we gave positive assurance that the formation of such an institution was all but accomplished. Within the past few weeks these predictions have taken definite form, and we are glad to announce that a school of architecture will be in running order in Chicago within the year. The prime movers in the enterprise are the managers of the Chicago Art Institute, under the roof and direction of which the school will be established, the extension of the present building being ordered for that purpose. The co-operation of prominent architects is promised, and in fact it is not wholly without their direct effort that the movement has taken definite shape. Some three years ago we saw the demand for such an institution, and interviewed the president of the Northwestern University regarding the establishment of a chair of architecture connected with that college, but without encouragement. The matter was then brought before several prominent architects, and a plan formulated so far as to consider names of those capable of holding professorships, with the Art Institute in view as the possible home of the proposed school. The matter again came up at a meeting of the Chicago Architectural Sketch Club two months ago, and was fully reported and commented upon in our January number. Now that these efforts have brought about the consideration of the matter by the president of the Art Institute, Mr. Charles L. Hutchinson, and his associates, its success is assured. As we have said formerly in regard to an endowment fund, "With the intelligent moneyed men of the West interested in art, of which architecture is the highest type, the contribution of such a fund should not seem formidable." Chicago has all the essential requisites for such an enterprise. Citizens with intelligence and money; architects who have the future of their profession at heart; draftsmen who have established the best sketch club in the country for self-instruction, and who will gladly welcome an opportunity for receiving more systematic training; and a large and growing surrounding country of which she is destined to be the educational and art center, as she is now the commercial.

**The Facts  
in Regard to  
the Owings  
Building.**

That the pen is mightier than the sword, or even the average intelligence of the public, when operated upon by the facile newspaper correspondent, is perfectly exemplified in the effect of the recent report of an alleged disaster to a high building in Chicago. The omission of certain tile arches to facilitate hoisting until the completion of the work and the displacement of some of the newly set arches by careless workmen raising a tank, which fell with sufficient force to displace other material, caused the startling report to be circulated that the Owings Building had fallen. The facts are that in this building there are two well holes, each about twenty feet long; the one prepared for the stairs, the other intended to hold the elevators. These well holes extend from the bottom to top of the building, and between them is a hallway five or six feet wide, intended for communication between stairs and elevators and the

rooms of the building on the different floors. During the construction of the building both of these well holes were used as holes for hoisting, and the passageway between them was used for loading and unloading the hoists and was kept covered by a plank runway until the building was under roof and most of the material hoisted, and all the remainder of the building, except the two lower stories, were plastered. When all the hoisting of material had been done, this plank runway was removed and the space between the two well holes filled in each story the same as the remainder of the floors of the building, with tile arches. By some means the men (sailors) engaged early on a Sunday morning in raising a tank to the top story caused an angle of the same to drop on the tile arch in the eighth story, which, being green, not yet covered with concrete or floor, the beams on each side, as yet unsupported by elevator guide posts and stair strings, and not in their ultimate condition of stability, knocked out the arch in the eighth story, which, falling downward, carried with it into the basement all of the arches in this area of about 5 by 20 feet, without, however, injuring, in their fall, anything except five I beams near the bottom of the building, which were bent out of shape by the weight of some iron pillars intended to form part of the supports of the stair string, which pillars had been lying on one of the floors and fell downward with the arches. The absurdity of the newspaper reports and statements sent throughout America and Europe is so stupendous as to be almost inconceivable. There were circumstantial and elaborate descriptions of the shattered condition of the walls, with spider web like fissures extending all over them from bottom to top; that the external walls left standing were out of plumb to an extent that their downfall was momentarily expected, and so on, and so forth; and yet, the day after the accident, an examination of the plastered tile walls in the building in the immediate proximity of the fallen arches, did not show even a hair crack.

**False Reports  
Regarding  
Fireproof  
Construction.**

The injury done by such reports cannot be repaired or excused, and they belong to a class that are common as they are censurable. Moreover, they retard the progress of perhaps the most important factor from a humanitarian standpoint in modern building, and that is fireproofing. Just as absurd was the report that "the fireproof Jewett Building" at Buffalo, burned, when it was in no sense fireproof. The same was true in regard to the Chicago Opera House and the "accident" to the United Bank Building, at New York, spoken of by a leading architectural journal, that should have known better, as a similar affair to that of the Owings Building, was just as far from the truth; the latter being in the shape of repairs involving the taking down of an unsuccessful system of fireproofing. No intelligent person can properly investigate the systems of fireproofing now in vogue without being convinced regarding the absolute fireproof quality of the material as applied, and impressed with the extraordinary strength of the flat arches laid between iron beams. The application is as simple as the building of a brick wall, and the lightness of the material makes construction safe as far as brick or stone walls can be carried up. We have used an extraordinary amount of space upon an absurdly small matter, but it seems imperative that one true statement should be made to counteract the absurdity and falsity of those that have made a very large mountain out of an infinitesimally small molehill.



## Romanesque Architecture.\*

### INTRODUCTION.

OUT of respect for the labors of scholars, we must preserve the term Romanesque architecture, a term adopted and sanctioned by usage for over sixty years; but truth forces us to state that the adjective Romanesque applied to architecture (by the French) is not contemporaneous with the construction of the great works we are about to study.

If it is true that the glorious art of architecture dates back to the earliest ages, it is not less certain that the word Romanesque, designating the historical period which is the subject of this volume, is eminently modern, since it did not exist before the year 1825.

It was at this time, Jules Quicherat informs us, that the term became generally accepted, through the efforts of M. de Caumont, he receiving it from M. de Greville, who proposed to the antiquarians of Normandy that they should thus designate architecture after the Roman domination and before the twelfth century.

This architecture that, up to this time, each one christened according to his taste (Lombard, Saxon, Byzantine), appeared to M. de Greville worthy of being called by a name that was not that of a people, considering it had been used in all eastern Europe and was not proven to be the invention of either Lombards, Saxons or Greeks. Hence as the term Roman was applied to our old idioms, and the use of the Roman element was universally admitted to be as obvious in this style of architecture, for which they wished to find a qualifying adjective, as the presence of the Latin radicals in the languages called Romanic (Romanesque in French), as, finally, one might be called degenerate Roman architecture and the other corrupt Latin, M. de Greville concluded to give to Romanesque architecture the same name that they had given to Romanesque (Romanic) languages.

The idea is good, but the consequences that arose from it and the application of it were less successful, for they wished to limit the period during which works should be called by this name of Romanesque so happily found. These classifications were too precise, too absolute; for it is very evident that in the first centuries of the Christian era (an epoch in which it is safe to place the beginning of the architectural period, which we shall henceforth call by its name of archeological baptism, that of Romanesque architecture) the artisan constructors, that is, the architects, followed the traditions of the Romans and Greeks, as they, in their time, with such success had followed the traditions which their illustrious ancestors had left them. They constructed their buildings according to the customs of the time, or rather they modified them according to the changes in religious ideas.

Nothing is invented at once, especially in architecture. Discoveries were made and certain forms were adjusted according to the ideas of the time. They were modified while they were appropriated, but a new style of architecture is not born immediately with a new social state.

This fact is visible from the earliest times of the church. The civil basilicas, admirably arranged to contain large numbers, became the places of gathering for the disciples of the new religion, without other modifications than the suppression of the emblems of expiring paganism and their replacement by the symbols of new-born Christianity.

The churches erected in great numbers during the first centuries were built on the plan of the Roman basilica, with the necessary additions for the sacramental rites. If later they were transformed under Oriental influence, there can be found at the same time, in the East, as late as the eleventh century, indelible traces of the Roman traditions, shown by the particular arrangement of the modified civil edifice constructed in the first centuries of the Christian era, as if this basilica plan had been the hieratic form, imposed by the religion of Christ.

Several centuries were needed to found a new art; for the Christian religion born under Tiberius, in the golden age of Roman civilization, produced a great moral reaction, but met with violent resistance, and consequently was the occasion of bloody persecutions. The first Christians were obliged to hide themselves, and the public life remained pagan in all its outward manifestations, until the day when Constantine, by the celebrated edict of Milan, in 313, proclaimed Christianity the religion of the state.

From now on the Christians gathered openly, but robbed of everything, and, timid after so many trials, they contented themselves at first with the old pagan buildings, and established themselves in the

courts of justice, in the exchanges or markets, that is, in the civil basilicas, after having them ornamented according to the dogmas of the new religion.

Christian art could not rise until it had acquired officially the right to open its temples for public worship. The first Christian architects for a long time kept the general arrangement of those pagan edifices transformed into Christian churches, imitating the forms to which they were accustomed, employing the materials that they had at hand and with which they were familiar by long use.

It is thus they preserved antique art from ruin and oblivion, by retaining what was useful to them, adding whatever their new needs required, and at the same time maintaining the principles of construction used in secular buildings.

If anyone wishes to find the origin of Romanesque architecture, he must seek earlier than the end of the Roman domination, and study, in Rome, the civil basilicas, transformed into Christian temples, in the first centuries of Christianity.

He ought to make an excursion into the Orient, particularly into Central Syria, a journey singularly easy to accomplish, by means of a very curious work of the Count Melchoir de Vogue, which sums up the learned and valuable discoveries which he has so happily made in the history of art.

In the first years of the second century, after the birth of Christ, Syria became a Roman province, and became the center of a most extraordinary architectural movement, which was only terminated at the end of the seventh century. Houses, palaces, entire villages were built as if by magic, and as at Rome, they first remodeled the pagan temples and then erected new ones. It was the first time in all the period of Roman colonization that churches were dedicated to the new worship.

These discoveries open up new glimpses of the early Christian architecture from the fourth to the seventh centuries, hitherto unknown. They are of the greatest importance, because that period of art has had a considerable influence on the development of art in the West. One is transported into the midst of Christian society, surprises its every-day life, not the hidden life of the catacombs, not the existence of humility, timidity and suffering that it is generally represented by, but a life broad and rich in grand stone palaces, perfectly appointed, and surrounded by beautiful vine-clad gardens. Its fine pillared churches, flanked with towers, still exist almost perfect, and if it had not been for earthquakes, they would lack nothing but the woodwork.

These Syrian churches reproduced the arrangement and the forms of the basilica at Rome. The style of construction is Roman, modified by local influence. In countries situated near forests the temples were covered with wood, but in countries where stone alone was abundant, the covering of the edifice was formed of arches, joining the lateral sides of the bay of the nave, destined to support slabs of stone which formed at the same time the ceiling and the roof. In all these cases the means employed were the most simple, and their wise arrangement indicated consummate ability and a familiarity with science, allied to a most delicate feeling for art.

One sees, at more than one place, churches of the fifth and sixth centuries with arched roofs, surmounted in the center with a cupola of elliptical form, imitative of the Persian. These timid essays marked the commencement of a style of construction which, a little later, at Constantinople, was so superbly developed.

We should have to analyze Saint Sophia to state the solution of the problem, and give a perfect example of an edifice, breaking the traditions of Greek art, and inaugurating a system of which the vault is the principal element.

The stonework of this cathedral of Justinian is not cut like the Syrian monuments. It is made of pieces of stone and cutstone solidly counter-buttressed, arranged in arches, vaults and cupolas, whose thrust is upon distant points which are united by arches. The walls of the interior are covered with mosaics and marbles.

The great architects, Anthemius of Tralles and Isidorus of Miletus, built Saint Sophia according to Roman principles, bringing to mind, by the architectural expedients, the liberal proportions of those immense Roman edifices of the third century after Christ, notably the Baths of Caracalla. The great arches are subdivided into arcades, supporting an architrave, or a gallery, above, upon which windows or a stone fretwork open, lighting the central structure.

The influence of the Oriental school, on the development of art in the West, is no longer contested.

The arts of design were held in great favor there, not only technical drawing, but the sentiment of form and color was cultivated. Antique traditions continued to be felt, but transformed by the effect of the new spirit. Under the influence of a court, whose taste for luxury

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect.



and habits of magnificence have never been surpassed, artists produced many works of eminence to meet the requirements of this rich, literary and refined society.

In this same epoch, the Western Empire was struggling in the rude embrace of the barbarians, and thinking how to defend itself, rather than cultivate architecture, the art par excellence of peace. Besides, for many reasons, it was dependent on the East, when it came to a question of art. It was from the East that it obtained fine stuffs, jewels, carved ivories, and all those objects of luxury for which it felt the need, but knew not how to produce. Finally, it was from the East that it demanded masters, and each great effort of art mentioned in history, between the eighth and the eleventh centuries, as well in France as in Germany and Italy, was marked by an emigration of Oriental artists.

The calamities which burst over Europe, before and after Charlemagne's reign, contributed still more to increase the influence which the East exercised over the West from the first centuries of the Christian era.

The year 1000 is a date made celebrated in history by the superstitious terrors of the middle ages. It was a common belief in the tenth century, that the world would come to an end in the year 1000 A. D. It is said that the church strengthened this belief with all its powers, which was by this time immense. The clergy spread it abroad, for a purpose, according to some chroniclers of the time, or from conviction, according to other historians. However, the churches derived great benefit from it, for considerable gifts were made to them and the monasteries, by sinners who wished to atone for their faults by abandoning their possessions while awaiting the end of the world.

But when the fatal date had passed without fulfilling the somber prophecy, humanity felt itself revived, filled with a new life. Its first sentiments were those of love and gratitude toward God, who had not annihilated it.

Thus commenced those innumerable pilgrimages, precursors of the crusades, to the holy places, to the tomb of Christ; and magnificent edifices rose over Europe because of this grand movement of religious faith, strengthened in the East, at the very source of Christian art.

After having established the origin of Christian architecture at Rome, in the East, studied its development at Constantinople, and its transformation in the West, it is proper to stop at the historical period, that scholars have so justly called the Renaissance of Charlemagne, and which was marked by the stepping forth of Romanesque architecture from the Roman and Byzantine leading strings that had supported its first steps. It was the desire to vault the churches, that toward the end of the year 1000 obliged the builders to abandon the old form of the Latin basilica.

From the end of the tenth century Romanesque architecture freed itself gradually from Latin traditions, to create new proportions, resulting, as early as the first years of the eleventh century, in the adoption of a new system, if not in detail, at least, in general arrangements.

The history of this architectural period is most interesting and most curiously instructive, because it shows the builders engaged in a struggle with difficulties which they conquered only after long efforts. We must follow their timid essays by the modification which they made in the traditional arrangement of the Roman basilica, first preserving the wooden roof over the central nave, and only covering the lower sides with ribbed arches. Then came bolder attempts, characterized, at first, by the barreled arch, reminding one of the constructions of the first century, which yet exist in the amphitheater and the nymphæa at Nîmes, and which seem to have inspired the Romanesque architects, later, by the continued barreled vault, covering the central nave, of which the thrust was maintained by half-barreled vaults in quarter circles. It is especially important to notice, first, the edifices built with cupolas, at the commencement of the eleventh century, as examples of an art achieved in and imported from the East, but modified in France, or rather in Aquitania at this epoch, and which were to have a great influence on the progress of our architecture. Finally, to notice the combination of the vault ribs, especially the diagonal ones which carry (the same as the prudentives of the cupolas but under another form) the weight of the vaulting upon points of support, which are solidly counter-buttressed, the whole being the commencement of a system of construction, which later had such astonishing applications.

The size of this work does not permit us to give all the developments of Romanesque architecture necessary to the study of it in all its branches. We have principally studied religious edifices, or religious architecture. This, at all times, is the expression of the

highest art with all people, that which gives us most clearly the idea of their civilization, of the creative power of their genius, and especially is it in religious edifices that Romanesque architecture shows most clearly the character of its transformation and progress.

It thus becomes necessary to understand well, from the start, the civil basilicas, the basilicas or Latin churches, and the Byzantine churches, of which the first part of this work treats, that we can fully appreciate the most characteristic monuments of Romanesque architecture in the second part.

(To be continued.)

## Boston Sketches—Suburban Work.

BY C. H. BLACKALL.

THE difficulty of adequately presenting a consideration of any one department of architecture without the fullest illustrations in the shape of sketches or photographs, is never more strongly appreciated than when the subject has to do with suburban work, which is, in fact, the most indefinite in its nature and the least subject to precise rules, either of plan, design or criticism, of any of the problems which the architect is called upon to solve. Our villa architecture will always be capricious in its artistic character, to say nothing of possessing the strong sense of individuality which is so characteristic of every effort of Anglo-Saxon influence. Our suburbs never could present the smart, neatly stuccoed, painfully proper and irretrievably monotonous aspect of the Parisian banlieue, and it will never be possible to reduce our country styles to a system so precise that a few examples would serve as types of the whole. Nor would anyone wish it so. An irregularity in plan; quaint, unexpected oddities in design; a picturesque effect, the result of deliberate intent rather than of accident, or of the weather, are qualities which are to be avoided in all work of a city or monumental character, but which are permissible, and to most Americans are almost necessary features of rural art. Fergusson, in his history of the modern styles of architecture, indulges in a quiet sneer at American architects, who, he says, plan their houses by cutting out pieces of card, the proportionate sizes of the rooms desired, and then fitting them together like a child's puzzle, without reference to symmetry or regularity. Without carrying independence to quite so childish a conclusion as this, we are able to permit a freedom in disposition which places the living rooms at the sunny corners, which throws out the omnipresent bay-window in almost any direction, which can indulge in half-stories, floors on different levels, porte cochères through the basement or cavernous loggias in the attic. All this is very shocking to one trained in the rigid lines of French art, but it is what has made our suburban architecture the picturesque delight of the present building era, and it is the task of the architect to metaphorically wrestle with the arrangement of all the rooms on the sunny side, to curb the bay-windows, subdue the carriage portal, combine good taste with the picturesque and common sense with floor levels, and by a broad, simple treatment even of the petty irregularities, to secure the feeling of quiet, and repose which should never be absent from domestic architecture.

All of this can be said quite as truly of the suburbs of San Francisco as of those of Boston, but the peculiar manner in which the problems have been studied in the latter city gives it perhaps a special title to consideration. The natural beauties of the suburbs of Boston are such as few cities can boast of. From the extremes of the wild Middlesex fells, a vast tract of almost virgin wilderness, within ten miles of the metropolis, to the storm-beaten rocks of Nahant, or the low shore lines of Cohasset, with the broad ocean for a background, there is found every variety of landscape to suit the most exacting requirements of either picturesque solitude, or cozy, nestling village life. The very fact, however, of there being such a diversity of natural attractions, renders it difficult for a stranger to obtain a fair idea of all there is to be seen, except by a long continued residence and by frequent excursions in all directions. Indeed, it is doubtful if many of the Boston architects themselves appreciate the extent and value of the work scattered about the outlying towns, nor can it be hoped, in the brief lines of a single paper and the narrow compass of a few illustrative sketches, to more than indicate, in a general manner, the style of buildings which can be found for the seeking. Comparisons are always odious and dangerous, but perhaps it may be pardonable to consider as types only the creations of a few of the architects who are best known to the general public by the quality of their domestic work, without wishing to disregard in the least, however, the host of admirably designed houses which go to make up the sum total of the suburban architectural attractions.

Though H. H. Richardson evidently had a preference for public buildings, the few examples of domestic architecture executed from



his designs show how truly he viewed the humbler problems, and how boldly his conceptions could be made to depart from the lines followed by those about him. His work at North Easton, a few miles from Boston, on the Old Colony Railroad, is probably familiar to most of the readers of this journal. The gate lodge at the entrance to the Ames estate is simply unique. No one but Richardson would have imagined such tremendous proportions, with its cyclopean moss-grown masonry, its deep, heavy browed windows, its broad archway spanning the road with a single stride, and its wide, generous hipped roof, which alone would cover a multitude of architectural sins and give character to the most commonplace substructure. Distinct historic style the building has none. It is neither Gothic nor Renaissance; surely not Classic, nor even Romanesque, unless the single, round archway could entitle it to such a distinction. It is a law unto itself, as, for that matter, was the architect himself. It is a rustic gate lodge, simple, as befits its sylvan character; imposing, as the entrance to a fine estate; and large in its masses and proportions without covering a great amount of ground. Perhaps it is a little out of scale, but then Richardson always erred in this respect, and perhaps wisely as well as intentionally so, for his smallest buildings have a large, imposing look which is obtained only by disregarding what we sometimes consider the essential conditions of scale and proportions.

Scattered throughout Normandy are a number of old *manoirs* or farmhouses of the better class, which ramble over the ground in a seemingly aimless manner, with usually a large courtyard, a quantity of half-timbered gable and overhanging balconies; fat, conical roofed towers disposed at the angles; bulging moss-grown walls, and irregular ridges, forming general picturesque harmonies, which are at once the delight and the despair of artist and architect. A few years since Mr. Richardson built a summer house for a Dr. Bigelow, which is so nearly akin to the Norman *manoir* type, that from a distance it seems to possess all the distinctive features which make the French farmhouse so delightful. It is located in an out-of-the-way corner of Newton, two miles or more from the railroad, where not one stranger in a hundred would ever find it, though the house is built on a commanding hilltop, whence it looms up in a truly medieval spirit, with long lines carried across the entire hillside and down toward the farm barns, and a broad, fat-sided tower and ample roof. A nearer acquaintance shows that the walls and roofs are shingled, and that, in detail, the comparison with the *manoir* type cannot be carried out, while at the same time certain modern improvements within and without make the house more habitable and comfortable than ever any *manoir* could be. The ensemble is perfect, especially as viewed from one side, when the relative narrowness of the structure is lost sight of. Richardson never neglected mere bigness, and if he could not have it in all directions, he would surely devise it for at least one. Were this same design to be crowded into the limits of a square house of equal ground area, the result would show a comparatively insignificant magnitude; whereas, by adopting a narrow plan, carried out in extreme length, the element of size is added to the architecture in the most effective manner. Chicago readers will remember how happily Richardson utilized this arrangement in the Glessner house, corner of Eighteenth street and Prairie avenue, which by reason of its long, low proportions appears to be much larger than many houses which cover more ground.

There is a very delightful, old-fashioned house in Cambridge on Brattle street, near the Longfellow house, which was designed by Mr. Richardson, delightful chiefly for the rich coloring of the weather-beaten shingles, and for the picturesque mass. There is hardly a detail, properly so called, about the whole design; nothing but simple masses, a deeply recessed porch, and a rounded tower in one corner; a dear, comfortable looking homestead, even if the windows are filled with plate glass. The Nickerson house, in Dedham, should also be noticed, though only indirectly a product of Richardson's genius, having been executed by Shepley, Rutan & Coolidge.

(To be continued.)

### Interior Work—A Bedroom.

BY WILLIAM MORGAN PETERS.

IN the illustration pages of this number will be found sketches of the four principal pieces of a bedroom set recently completed for Mr. William H. Crocker, of San Francisco, Cal.

These pieces are made of selected San Domingo mahogany, with all hardware in brass, antique finish, and French beveled plate mirrors. On the front corners of the three cabinet pieces are turned posts standing three-quarters free; the upper course moldings follow-

ing their outline and having a member of small beads throughout their length, as has also the lower horizontal course molding. The upper portion of posts are rendered vertically, having a small necking just below of increasing diameter, which continues into a bulb of foliage, from which the post runs straight and plain down to the encircling base member.

The mirror frames are made to swing on pivots, which can be tightened so as to fix them at any desired angle.

The dressing bureau is a combination of dressing table and bureau, 5 feet long, with ample shelf-room and eight small drawers for toilet articles or jewelry above main shelf, opening toward each other. The main shelf in case recedes slightly at the center in an elliptical curve, which allows of one sitting nearer the mirror and from this position having easy access to all drawers in the case and also the lower shelf at back of center portion. The standards which support the mirror finish in rounded bulbs of foliage at the terminals of the vertical framepieces, and the center portion of upper framepiece are also carvings of delicately detailed foliage.

The cheffonier, 3 feet 8 inches wide, has three large drawers below and two smaller ones just above these, the whole upper portion being a cupboard for hats and bonnets, with glass-paneled doors, having a brass grill over the outside. The upper or shaving case, which stands on four small balls, and is a wholly separate piece from the lower portion, can be used on a table or in any other position that may be desired. It has two doors in the base, with standards supporting the small swinging mirror, which is similar to the large mirror in dressing bureau. The washstand, with open corners for pitchers and slop-bowls, and an inclosed cupboard in the center, is 4 feet long, and has two doors in the upper section and two narrow shelves at the right and left sides above main shelf for small toilet articles. An open frame at the back, similar to the mirror frames, has a curtained center to keep the splashing water from the walls, the curtain-rod being also intended for hanging towels on.

The general design in all three pieces is as similar as the different requirements will allow.

The bedstead, 5 feet by 6 feet 6 inches inside measurement, is quite heavy in effect, the outer framing being made of 3-inch solid stock allowing of deep reveals for the panels, the vertical framepieces having slightly rounded corners with the upper crosspiece at head and foot board round in section at top of center portion and gradually changing to the same section as the vertical framings at their intersection with them. The panel moldings have one detailed member running throughout, and in section are a series of small elliptical beads, divided by sharp, fine fillets. The carvings of foliage at the terminations of the vertical framings, and also those flowing over the rounded surfaces of the center portion of the upper rail of head and foot board are executed with sharpness and delicacy.

The detail of all the carvings on these pieces is of a slightly modernized Romanesque character, designs being very carefully studied and rendered, with tool marks prominent. Great care was taken to make the construction and finish of all these pieces as nearly perfect as possible, and there are few beside practical cabinet makers of the highest grade, who realize the cost involved in obtaining such results, where to even the smallest particular only the best of everything is considered as good enough, both in work and material.

The room which these pieces are to occupy is about 28 by 20 feet, with a dressing room adjoining, both being lighted by extra large windows and finished throughout in mahogany. The floor has an inlaid border about 2 feet 6 inches wide, with a rich Axminster carpet center in a conventional foliage pattern, having a quiet general effect in olives and old gold. The walls are clouded in a brownish olive and terminate in a wide frieze of modernized Romanesque foliage pattern in old gold, below which is a picture-molding and a small band of interlacing strap pattern finely pearled. Just below this, again, a large pattern of similar character and rather intricate design, about 18 inches wide, borders the ceiling which is in olive on a clouded ground of old gold. All ornaments are treated perfectly flat and touched with gold throughout.

The window hangings consist of straight valances of old gold silk, with a braid border similar to the strap pattern in the decoration behind which hang silk and lace curtains.

The remaining pieces completing the furniture are a small table, a stuffed over lounge, with an arm at one end and a loose pillow, two stuffed over easy chairs and two bedroom chairs covered with a foliage figured olive and old gold worsted tapestry.

It is well to note that the carving indicated in the illustrated designs is carried out in the less important pieces with the same simplicity and richness.



### Illinois State Association of Architects.

THE regular monthly meeting of the Illinois State Association was held February, President W. W. Clay in the chair, Osborne J. Pierce, secretary.

After the usual lunch had been disposed of the meeting was called to order, the following members being present:

Louis J. Schaub, Dankmar Adler, W. W. Clay, N. S. Patton, Henry Raeder, S. A. Treat, O. J. Pierce, S. M. Randolph, Alfred Smith, Clinton J. Warren, Edward Baumann, C. L. Stiles, L. J. Halberg, H. B. Hill, R. C. Berlin, J. L. Silsbee, H. O. Hansen.

On motion of S. M. Randolph, the chair appointed a committee, consisting of S. M. Randolph, J. L. Silsbee and H. B. Hill, to draft resolutions upon the death of Edward Baumann, who died in Europe recently.

The following resolution was introduced by C. L. Stiles:

*Resolved*, That this association request of the Quarry Owners' Association samples of old stone, represented by them, from which analyses, crushing and frost tests, may be made, the expenses to be borne by the Quarry Owners' Association.

*Resolved*, That the president of this association appoint a committee of three to receive said samples, under whose direction the analyses and tests shall be made.

Mr. Adler: Here is a matter which ought to have been attended to before, but owing to Mr. Sullivan's illness and much work I have been unable to attend to.

The Western Association of Architects adopted a proposed form of legislative document, which was to be presented to the various associations, agitating that architects should be placed on the same footing as lawyers and doctors, and to pass examination as to capability, etc., and furnish satisfactory bond to be posted, and that a committee be appointed to confer with the Illinois State Association to present a bill, and that each architect shall constitute himself a committee of one to see the bill is passed; that a committee of three be appointed to represent the association at Springfield, and that the necessary expenses be paid by the association.

It was stated by members that the Texas State Association and the Western New York Association had similar bills before their respective legislatures, with a fair probability of passage. S. M. Randolph introduced the following resolution:

WHEREAS, The Illinois State Association of Architects, together with their professional brethren in all parts of this country, feel a deep interest in the course which the United States Government shall pursue in the designing and construction of its buildings; and

WHEREAS, A change of administration in the government is about to take place, and changes in this branch of the public service may follow; therefore be it

*Resolved*, That the Illinois State Association of Architects hereby respectfully petition the President-elect and the incoming Secretary of the Treasury to make such changes in the practice of designing and erecting public buildings as shall more nearly conform to the methods adopted by independent corporations and private individuals, thereby obtaining a much better grade of buildings at considerably less cost; and be it further

*Resolved*, That we distinctly disclaim any intention to reflect upon the incumbent of the office, or of any of his predecessors, believing that their comparative want of success is due to the system under which they were laboring; yet if a change is made in the office of Supervising Architect, we respectfully request the appointment of some architect whose energy, skill, experience, executive ability and integrity shall be thoroughly established, and who is in sympathy with the desire for reform in the methods of the government as far as they relate to the architectural design and administration of its public buildings, as expressed by the resolutions of the Western Association of Architects and the American Institute of Architects.

It was also ordered that the secretary mail copies of the resolution to other associations, inviting their coöperation, as follows:

In pursuance with the instructions of this association, we take pleasure in forwarding copies of the above resolutions to you with the request that the subject matter of this communication may be laid before your society at the earliest available opportunity, and with the hope that you will earnestly coöperate with us in the endeavor to correct the obvious evils of the present methods of government building. Will you kindly distribute surplus copies to the officers of any local architectural societies or chapters which we may not have reached in this distribution.

On motion, the resolutions were adopted and the instructions so ordered.

Mr. Dankmar Adler was then called to the floor to address the association upon the subject of "Stage Mechanism," as applied to the stage of the Auditorium, and as compared with the new improvements in European theaters. Mr. Adler apologized for not having prepared a formal lecture on the subject of stage mechanism, and stated that he would simply indulge himself in a discursive chat on what he had seen during his late European tour.

Mr. Adler said that in London he had visited five new theaters in process of erection, and he considered their methods of construction admirable. Beginning at the bottom, the pit was literally what its name implied, in some cases sunk as much as 30 feet below the street level, and as the flooring was laid on the ground without any basement, there was no danger of fire from below. The framing constructions of the galleries and balconies were entirely of iron. The main beams about fourteen feet apart, with lighter iron cross-beams at the lines of the risers, and the whole then filled in solid from bottom to top of beams with Portland cement. The risers for the stepping of the seats were made of hollow bricks with three-inch plank bolted on the top to form floors of the steppings. The entrances, though somewhat primitive in their accommodations for ticket buyers, were quite well arranged, each part of the house having two entrances of its own without the lobby for common use customarily in this country. The stairs were usually of concrete, their width being about 4 feet 6 inches, generally, between brick walls, thus giving sufficient side support. In some cases where elegance was aimed at, the concrete was covered with thin marble slabs. The concrete forming the floors was covered with linoleum glued down. This material in addition to doors and sashes was practically the only one combustible in the auditorium proper and in the hallways. One thing, however, struck him as strange, that in every

case the roof and the trusses supporting it were made of wood, Mr. Phipps, the recognized authority for theater building in London, having an idea that in case of fire an iron roof construction would cause the walls to fall. Another peculiarity of these theaters was the construction of the proscenium wall. This was built of brick, the proscenium opening being covered with a heavy stick of timber into the ends of which notches were cut which served as skewbacks for a brick relieving arch. In answer to the inquiry what would become of this arch after the timber had decayed, he was told by the clerk of the works, that there was no danger of that in the climate of England. The only heating device that he observed in any of these theaters was in the form of open fireplaces in the dressing rooms. The gas and animal heat of the audience were supposed to be sufficient to maintain a comfortable temperature in the coldest weather to be expected in the mild climate of England. What little ventilation there was, was obtained by windows and alleged ventilating ducts, showing no connection with any motive power for moving the air either into or from the building, their efficacy depending entirely upon the arrows drawn on the plans to show the direction of the wished-for air currents, with the result that it was decidedly imperfect. Throughout London, it appeared that the small theaters were, as a rule, most scientifically constructed, in fact, that as they increased in size they decreased in safety. Some of the large ones being veritable fire traps, for even if the auditorium proper was moderately fireproof, the stage was a regular tinder box. The curtains were generally of corrugated iron covered with asbestos and painted so that they could be used as act drops. They were raised by counter-weights.

Leaving England, it appeared that on the continent the conditions were reversed. The larger theaters, being the property of the governments and municipalities, were by far the most thoroughly constructed, many of them fireproof as far as the auditorium was concerned, a few even with fireproof stage construction. The rarity of fireproof stage construction is due to the almost insurmountable difficulty, and the enormous cost of such an undertaking.

Before speaking of fireproof stage construction in particular, I wish to say a few words as to stage construction and mechanism in general. Up to a very recent period no effort has been made to apply upon the stage any of the results of modern progress in the science of mechanics. The block and tackle and winch, aided by "main strength and awkwardness," were, and on most stages still are, the only tools at the command of the manager of a stage performance. One reason why labor-saving devices were not adopted may have been because in the theaters on the continent of Europe, most of which are under state and municipal control, soldiers are always obtainable in case the services of a large number of extra men are required. Some twenty years ago a Mr. Brandt invented a system of balancing scenery with counter-weights, which was used in Germany, but to the best of my knowledge nowhere else. It enabled the stage manager to direct from one spot the raising or lowering, by men stationed on the stage floor, of anything required. After the disastrous fire in the Ring Theater, in Vienna, in 1881, Messrs. Dengg, Kautsky and Roth, of Vienna, invented certain improvements to prevent, if possible, a recurrence of such disasters; chief of these was the substitution of iron for wood in the framing of the supports of the stage. The weight of the iron used was so enormous that the usual methods of raising and lowering the movable parts of the stage had to be abandoned and a system of hydraulic jacks, controlled from a single point was substituted. Their motive power was supplied by steam pumps, compressors, or the power given from an elevated tank, and was controlled by valve connections. The opera house at Buda Pesth has a curtain opening of 47 feet and a depth of stage 120 feet; the mechanism of the stage is almost perfect, and, in fact, it was chiefly to familiarize himself with the working of this theater that Mr. Adler's tour was undertaken. The most marvelous and rapid transformations are produced by proper applications of the power of the hydraulic jacks, somewhere from 100 to 123 in number. For example, the ship scene in "L'Africaine" which takes from twenty-five to forty-five minutes to set in an ordinary theater, but here eleven minutes are sufficient.

The same system of stage mechanism and construction is in use in the Municipal Theater at Halle, and in the German Theater at Prague. But efforts to assimilate existing theaters to the improved system are being made in many places. In the Court Opera House at Dresden they have begun to take out the woodwork and are substituting iron in the rigging loft of the extensive stage, also replacing hemp with wire ropes, the wooden pulleys and blocks by iron ones, etc. In the Imperial Opera House at Berlin all the old wooden traps, sinks and bridges have been removed and iron ones substituted for them. A system of hydraulic motors is used here, differing somewhat from the one in use at Buda Pesth. It was designed by and erected under the direction of a son of Mr. Brandt, by whom also the Court Theater has been remodeled and its entire stage rebuilt, and iron framing, iron pulleys and blocks and wire ropes used everywhere. A hydraulic apparatus is also being built for this stage, to be put in place during the summer of 1889. The new Lessing Theater at Berlin is fireproof and its rigging loft entirely of iron, though the sub-stage is mostly of wood.

The Hofburg Theater, at Vienna, is certainly the most magnificent in the world. The artist, sculptor and painter seem to have vied with each other to make this building a marvelous work of art. The staircases equal in quality of design that of the Grand Opera House at Paris. There are two main stairways, both straight with a landing in the middle. The steps, balustrades and wainscots are of the rarest and richest marbles selected and combined with the most exquisite artistic skill. The frescoes of the ceiling are so carefully arranged that as you mount the stairs, picture after picture presents itself each



from its proper and effective point of view without necessitating that craning of the neck so distressingly destructive to the comfortable enjoyment of such decorations as ordinarily found. Bronze is used on the staircase, and the house is adorned with many basso-relievos. This theater, considered abstractly as an artistic creation and as an exponent of the utmost development of the application of the fine arts to decorative building purposes, stands without a peer. Yet it is from the utilitarian standpoint a lamentable failure. Fully one-third of the audience can hardly hear a word, and although this theater covers much more ground than the entire Chicago Auditorium Building, yet the seating capacity is only 1,800, the rest being taken up in foyers, etc. The stage mechanism is a most stupendous and egregious blunder. The constructor, having decided to use a system of his own, and determined to evade the patents of Messrs. Gwinner, etc., has substituted for the direct transfer of hydraulic force used at Buda Pesth, a transmission of power by ratchets, gearings, pulleys, ropes and winches, which has multiplied the cost of the apparatus by three and divided its efficiency by nine. To overcome the vastly increased friction, the size and weight of the moving parts was largely increased, this again increasing friction and so on indefinitely.

Mr. Adler stated that he had seen a letter from the Vienna correspondent of the *Staats-Zeitung*, which stated that public interest in this theater had divided the population of the city into two factions, one of which seemed to think that the architect ought to be treated to "something lingering, as in boiling oil," or at least that he should be condemned to perpetual imprisonment, while the other held the ground that the creator of so exquisite an art work must be held as moving on a higher plane than ordinary mortals, and should not have been expected to be *au fait* in such little matters as sight lines, acoustics, stage mechanism, etc. Not only is the populace excited on the subject, but the local association of architects, civil engineers and others are continually holding stormy meetings, endeavoring to decide if the architect shall be indorsed or condemned.

The stage mechanism of the Chicago Auditorium will be similar to that used at Buda Pesth, and will have a depth from curtain line to back wall of 62 feet, by a width of 110 feet. It will be divided into sections, four of which, each measuring 9 by 46 feet, will each have a downward motion of 8 feet, and upward one of 13 feet, and capable, besides, of a rocking motion, and each section capable of any of these motions independent of the others. In the middle of each of these four sections a space 4 by 26 feet is capable of a downward motion of 18 feet, and an upward one of 18 feet. On the 26-foot section any stage picture and a group of performers can be raised from below to a height of 18 feet above the stage. There will also be three smaller divisions, two of which will be capable of an 8-foot downward motion, and one with an upward and downward motion of 8 feet each way. When raised above the stage, the aperture below the platform was concealed by scenery from the audience. The drops, being light, are worked by counter-weights with hemp ropes, handled from the stage, the rest of the ropes used being of wire. The floor is of three-inch plank, and this and the canvas are the only combustible materials used. The canvas can hardly be considered as very inflammable, owing to the paint used being distemper—mineral paint, ground with water and mixed with glue. It has been found impossible to use any preparation to render the canvas perfectly unflammable, as all the solutions recommended absorb damp, and cause the paint to peel off. It has been found in fires that it is the woodwork that is the great source of danger, and that the thick coating of distemper paint renders the scenery very slow-burning material; so that with electric light instead of gas, and the substitution of the arc light effects for the calcium light formerly used, the two greatest dangers have been eliminated. In the larger European houses the stage is provided, for the purpose of gaining control of fires among scenery and properties, with perforated copper pipes, controlled from the stage by valves. The great height, 90 feet, would render automatic sprinklers both uncertain and slow in operation, as a current of hot air is so easily deflected to a sufficient distance as to cause a sprinkler to work in the wrong place; also, as at that distance the heat would not penetrate rapidly enough by radiation, but as the heating effect upon the sprinkler would have to be made by the actual lifting of the smoke and heated air to the fusible plugs, the response of an automatic sprinkler to a fire would be comparatively slow. The sprinklers used in Europe are from eight to ten feet apart, and are worked by cords from the stage, each pipe having a shut-off on the stage floor, so that by pulling a cord, every section can be used by itself. Copper pipes are used in preference to iron pipes, because the latter, having greater thickness of metal, and greater tendency to form oxides, present more risk by stoppage of the perforations in the pipes by dust and rust.

Mr. Adler narrated a few instances where incipient theater fires were extinguished very quickly through the presence of mind of the manager and the excellent discipline of the stage employés. Mr. Rudolph, the stage manager of the Municipal Theater, at Frankfort, saw a fire break out among his gauze hangings over the back part of his stage. He gave the signal to pull the rope controlling the counter-weight of that particular drop and in a few seconds the burning material was lowered to the stage floor and the fire stamped out without the audience having been any the wiser.

The boiler of McVicker's Theater is on the opposite side of an alley, and the ceiling over the boiler room formed of wooden joists, which were to have been covered with porous terra-cotta, but at the time of opening the theater after its recent reconstruction this part of the work was not finished, and at one of the first performances some of the unprotected joists caught fire. The smoke passed into the air duct and the manager smelt it, at once shut off the air supply and stopped the ventilating fans; he then ran over, and with the aid of the well-drilled force of the theater and a few buckets, and the often ridiculed but very efficient syringes, provided for such emergencies by

Mr. McVicker, had the fire out before the fire department, which had been summoned at once by the automatic fire alarm, could arrive. In consequence of this occurrence, Mr. McVicker caused the removal of the entire wooden framing over the boiler room and the substitution thereof of iron beams and tile arches.

Mr. Adler terminated his talk, which was altogether conversational and without reference to manuscript or notes and which had been frequently interrupted by the inquiries of the listeners, by stating that although he was far from having exhausted his subject he had exhausted himself and feared that he had exhausted the patience of his hearers.

The meeting then adjourned to Monday, March 18, 1889.

## Western New York State Association of Architects.

THE fourth regular meeting of the Western New York State Association of Architects was held at the Chamber of Commerce, Rochester, N. Y., February 5 and 6, 1889. The meeting was called to order by President J. G. Cutler, and Secretary W. W. Carlin called the roll, the following members being present:

Otto Block, Rochester; E. M. Buell, Syracuse; R. A. Bethune, Buffalo; Joseph Blaby, Palmyra; H. C. Burdett, Buffalo; James G. Cutler, Rochester; J. R. Church, Rochester; C. F. Crandall, Rochester; Charles E. Colton, Syracuse; E. A. Curtis, Fredonia; W. W. Carlin, Buffalo; O. W. Dryer, Rochester; Otis Dockstader, Elmira; J. M. Elliott, Syracuse; Jay Fay, Rochester; Orlando K. Foote, Rochester; Fred H. Gouge, Utica; W. Foster Kelly, Rochester; T. I. Lacey, Binghamton; B. T. Lacey, Binghamton; J. H. Marling, Buffalo; Thomas Nolan, Rochester; J. H. Pierce, Elmira; L. P. Rodgers, Rochester; W. H. Richardson, Rochester; Wm. C. Walker, Rochester.

President Cutler then read an interesting address, and at its close a vote of thanks, moved by Mr. Curtis, seconded by Mr. Bethune, to President Cutler for his very able address, was passed.

Mr. Carlin: In connection with the admirable address to which we have just listened, and referring especially to that part of it in relation to licensing architects, I should like to read a draft of a bill which is now being introduced to the Illinois State Legislature providing for that very matter.

Mr. Carlin then read the bill formulated and adopted at the St. Louis convention of the Western Association three years ago (printed in the official report in the *INLAND ARCHITECT* Vol. VI, No. 5, page 82).

In order to get this matter properly before the meeting, I would move you that a committee be appointed by the chair to whom shall be referred this bill, with instructions to report their action thereon tomorrow.

The motion was seconded by Mr. Buell, of Syracuse, and, after considerable discussion, was carried unanimously.

President Cutler: I will put as such committee W. W. Carlin, of Buffalo; Otis Dockstader, of Elmira, and C. E. Colton, of Syracuse. I have received a communication addressed to the society from the Rochester Builders' Exchange, that association requesting that this society will take early action with reference to the adoption of the uniform building contract which has been accepted and adopted by the Western Association and the American Institute of Architects in conference with the National Association of Builders. Our local Builders' Exchange has affiliated with the National Association, and has been charged with the duty of bringing about the adoption of this contract if practicable. This is also a matter of the greatest consequence to the public and the profession, and one which should be acted upon with deliberation, and I think that before any final action is taken upon it by the society the matter ought to be considered by a committee. If there is no objection I suggest that the secretary read the form of contract proposed, as it may not be familiar to all members.

The form of contract was read by Secretary Carlin.

President Cutler: Of course, this contract comes to us with the official recognition of a joint committee of the Institute, of the Western Association and of the National Association of Builders. I suppose it has been very carefully looked over by persons competent to pass upon the matters involved in building operations, but at the same time I think the question of its application to this particular locality ought to be carefully considered. I am almost ashamed to say that I have not given the subject the consideration which it deserves, but we are asked now to say definitely whether we will or will not agree to use it. I should be glad to hear from any member who is willing to express his views on the subject.

Mr. Block, of Rochester: I move to refer it to a committee for consideration, to report tomorrow.

President Cutler: The contract comes to us with the indorsement of both the national architectural societies as well as the National Association of Builders.

Mr. Carlin: It seems to me it is high time we had one specific form of contract, and if there can be a better one devised, there has been a great deal of labor wasted on this one. The subject was brought up in Buffalo, and a committee was appointed by the Buffalo society to get up a uniform contract for the city, and this contract was recommended by that committee. I think a great deal of trouble and misunderstanding comes from each architect in the same place using a different form of contract. I think if we had a uniform form of contract, and so understood by the builders and owners, that it would be much better for our peace of mind and for the profession.

Mr. Kelly: I suppose that contract has been looked over by some legal gentleman, as well as architects and builders. The old form we



use about here I have known lawyers to pick so many holes in that when they got through with it it was impossible to tell who contracted to do anything or whether anybody had anything to do with it. Now, I think if this contract has been so carefully looked over as they say, and adopted by the three institutions most interested in it, I should think it would be the best thing to adopt it. I agree fully with Mr. Carlin that a uniform form of contract would be the best thing for the architects, and people building as well.

Mr. Dockstader: It seems to me advisable to adopt a uniform form of contract for the advantage it will have legally. There is no doubt but that questions will arise, but for the present it seems to me the very best way to do is to adopt it. In fact, I am using the contract myself, and as fast as questions arise in regard to the construction of any clauses in it, and they are settled by the courts, it establishes precedents which give a value to that contract.

Mr. Carlin: One word as to the cost of these forms of contract. The Inland Publishing Company, of Chicago, publishers of THE INLAND ARCHITECT, have been licensed to publish the blanks, and any number of copies can be obtained from them on application. The blanks will be furnished at \$1.10 per hundred, and in larger quantities at a cheaper rate.

After some further discussion, the motion was put and carried, Messrs. Curtis, of Fredonia; Marling, of Buffalo, and Walker, of Rochester, being appointed as such committee.

After some discussion upon the respective uses and merits of two copying processes, the session adjourned to 10 A.M., February 6.

#### SECOND DAY—MORNING SESSION.

The meeting was called to order by President Cutler, at 11 A.M. The calling of the roll was dispensed with and the report of the Committee on Competitions being called for, Mr. Block stated that though the committee had held no meetings he had subject matter to present and read an article from an architectural journal entitled, "Suggestions for the conduct of architectural competitions." Mr. Carlin read the suggestions regarding the same sanctioned by the Royal Institute of British Architects, from Mr. Illsley's report to the Missouri State Association.

Mr. Carlin was opposed to any cast-iron rules covering this subject adopted by a society of architects, or, in fact, covering any other subject, and to laying down a set of rules for the government of the members of an association of this kind, and more especially in such a matter as covering the question of competition, and that committee ought to be continued, and asked to formulate a series of rules for the three different kinds of competition, as follows:

*First.*—A competition open to anyone who chooses to come in, the remuneration for which consists in a series of prizes.

*Second.*—A competition to which only those are eligible who are invited, but in which the remuneration consists in a series of prizes.

*Third.*—A competition to which only particular ones are invited, and where each is paid a fixed amount for the sketches submitted, the successful one to receive the work at the usual compensation.

Mr. Carlin suggested that the committee be empowered to prepare a scheme of that kind, that it be printed either in pamphlet form or as an addition to the by-laws, and a number of copies sent to each member so he could have them for distribution as the occasion demanded.

Mr. Carlin's suggestion was received as a motion, which was passed.

President Cutler: On motion, the resolution passed at the meeting in Buffalo, in October, binding the members of the association not to enter a competition, except a paid competition under the rules of the American Institute, was reconsidered, and, upon motion of Mr. Carlin, was rescinded.

Mr. Curtis: The Committee on Uniform Contracts have to report that while your committee might find some points in it which they would like to see changed in a degree, after due consideration we have thought that it having been adopted by other bodies who have thought it all over carefully, and probably spent a great deal more time on it than we have, we would recommend the adoption of the contract.

President Cutler: I should like to say briefly with regard to this that as I understand the recommendation to adopt the contract does not bind any member, and is quite in line with the suggestions which have been heretofore made at this meeting, that we are not here for the purpose of making castiron regulations. A recommendation to adopt is, of course, only binding so far as the individual members choose to act upon it.

Mr. Colton: I move that the report of the committee be accepted, the recommendation adopted, and the committee discharged.

The motion was seconded and carried.

Mr. Carlin: I wish to announce that there is an exhibit of building materials, in room 220 of the Powers Hotel, that the agents of the firms represented are there, and will be glad to have anyone interested in the subject call and see them.

President Cutler introduced Mr. J. Y. McClintock, secretary of the Chamber of Commerce, to whom the association was indebted for the use of the room. Mr. McClintock made some remarks of welcome and approval.

On motion of Mr. Walker a vote of thanks was extended to Mr. McClintock, including a vote of thanks from the association to the Chamber of Commerce, of Rochester, for the use of their rooms, after which the meeting adjourned to 2 P.M.

#### SECOND DAY—AFTERNOON SESSION.

The meeting was called to order at 3 P.M., President Cutler in the chair.

The report of the Committee on Legislation was called for.

Mr. Carlin: I would state that the committee have had scant time to go into the provisions of this bill as much as the case merits. They

have hastily scanned it, made some additions and alterations, and would merely read it again with a view of bringing out such a discussion by the members here present as would instruct a committee which may be appointed as to what the sense of this meeting is.

The corrected bill was then read by Mr. Carlin, changes having been made to better suit local conditions.

Mr. Carlin: I would further recommend as a part of the report of the committee that the committee be continued, with the addition of Mr. James G. Cutler, of Rochester, and Mr. J. H. Pierce, of Elmira; that this committee be empowered to reconstruct this bill as may seem best to them, returning practically the same provisions, after consulting with the members of the legislature from their respective districts, and, if necessary, with the committee on judiciary at Albany, and if, in their judgment, such action is wise, they shall be empowered to present the matter to the present legislature, but they should not be instructed to present such a bill unless, in the judgment of the committee, it was deemed expedient to do so at this session.

Mr. Bethune, of Buffalo: I will second the motion.

The discussion of the bill occupied the entire session. The report was finally amended to include some minor details, including the coöperation of other associations, and carried unanimously, the committee in charge being Messrs. Carlin, Colton, Pierce and Cutler, and their instructions being to prepare a bill upon the lines of the draft presented by the committee, and, if possible, to get it presented to the legislature at the present session.

On motion, it was ordered that the annual meeting in October be held at Syracuse, and the place of the June meeting be left to the Executive Committee.

A vote of thanks having been passed to the press for the full and complete manner in which the proceedings had been reported, the convention adjourned.

#### BANQUET.

On the evening of February 6, the association, as the guest of the Rochester architects, sat down to an elegantly arranged banquet, President Cutler presiding.

Letters of regret were received from Mayor Parsons, C. R. Percival, R. M. Upjohn, E. G. Hall and others.

There were no formal speakers, but, as Mr. Cutler remarked, "but, of course, an affair of this kind cannot be allowed to go off without more or less talking," some excellent speeches were listened to.

Mr. Charles B. Fitch spoke of journalism, and of the needs and the privileges of the architectural profession.

W. W. Carlin spoke of the Western Association of Architects, of which he is the president, giving a brief outline of its history from its inception at Chicago by the editors of THE INLAND ARCHITECT to the present time, and stated that one of the best features and most valuable results of association was the fraternal feeling awakened by mutual acquaintance.

Mr. Theodore Bacon, as a member of the bar, made a very witty and enjoyable speech in which he styled the standard contract "a protection alike to the producer and the consumer." In regard to the adoption of the standard contract form Mr. Bacon said, "This contract, by the way, is one of the things, it seems to me, seriously, in respect to which this association is doing a very substantial service both to the members and to everyone with whom they may have relations, either as owners or as contractors. It is of immense consequence not so much that the contract which you see is in the best possible form, as that the contract which you use shall be the same in form as the contract which everybody else used. That is of infinitely more importance than that the contract shall be just right. It is better to have a uniform contract even defective in its details, than it is to have a thousand or an infinite number of forms of contracts differing in details one from another, so that everyone must be subject first to specific detailed examination; first, on the part of the architect; second, of the owner, and third, of the contractor; and then after it is executed and after the rows begin, as I believe they usually do, then it must be subjected to a new kind of examination on the part of three sets of gentlemen learned in the law; one set on the part of the architect; another set on the part of the owner and another set on the part of the contractor, and then each new contract requiring new determination as to the meaning of its specific provisions must be made the subject of lawsuit after lawsuit which would be saved to everybody if only the intelligent comprehension of the parties to it had been provided for in advance by experience with an adopted generally accepted form of contract which everybody knew of just as they know of the standard form of fire insurance policy. Now, the adoption in this state of the standard form of fire insurance policy has saved already, I doubt not, to the vast loss of the profession to which I belong, but has saved already in this state enormous losses by litigation, by dispute, by contest, of reasonable claims in the non-presentation of unreasonable claims; has saved already, I doubt not, millions of dollars to the community in which we live. And, therefore, if you exist for no other purpose than that of Mr. Carlin to discover, in regard to one another, that you are not quite so bad as you have been supposed to be, and second, to aid in establishing the use of a uniform contract, whether this particular one or some other, you will have given abundant justification for having been formed into an association and having existed as such." Mr. Bacon closed his remarks with a eulogy upon Architect H. H. Richardson, which was finely worded and provoked much applause.

Professor Latimer spoke upon the educational aspect of the profession, and speeches were made by Messrs. Burdette, Colton, McClintock, Marling, Fay, Grant, Dennis, Gouge, Curtis and others, after which the company sang "Auld Lang Syne" and separated.

The arrangements for the banquet were exceptionally complete and were creditable to the hosts, the architects of Rochester.



### Texas State Association of Architects.

THE fourth annual convention of the Texas State Association of Architects was called to order at 2:20 P.M., January 15, 1889, at the McClelland Hotel, Waco.

The proceedings opened by the following address from the president, W. C. Dodson, of Waco:

#### PRESIDENT'S ADDRESS.

GENTLEMEN OF THE TEXAS STATE ASSOCIATION OF ARCHITECTS,—In its annual course the day returns for us to meet in council in the interests of our profession; and in the beginning of our deliberations I return to you my thanks for the honor conferred in unanimously choosing me to the responsible position of president of our association.

To us this meeting is of importance, because questions are to come before us of high interest—some of which will be hard to determine, but I believe the sound sense of the association, coupled with the intelligent understanding of our wants by each member, will enable us to so take counsel together in such a manner that right conclusions will be reached, and an impetus given to the objects and aims of our association which will terminate in the fruition of our hopes.

Three years have passed since our organization, and during that time much has been accomplished for our own benefit, and much also for the welfare of the people. Our social relations have become more intimate by better acquaintance with each other, and our influence has been increased with the people by educating them to a better apprehension of the duties and vocation of the architect, and of the necessity requiring the services of men skilled in the science and practice of building, and in the wants and needs of the citizen and the community. But while we have made some progress, we have hardly begun the work which lies before us. A vast field is to be traversed if we accomplish anything worthy of ourselves in the achievement of the objects for which we are associated, and secure the benefit to ourselves, to the people and to those who may follow in our footsteps, which we should work to accomplish and bend all of our energies to attain; so in addressing you today I wish, in a cursory manner, to present the subjects in such a light that each of us may be stimulated to more zeal and have increased energies for the work before us.

There are several questions which will come before you, but none of more importance than our proposed bill to regulate the practice of architecture. This is a matter of importance to every member and should receive their earnest support, and careful examination that it contains nothing which would not stand affirmed in the courts and receive the approbation of all enlightened and just men. There are persons who make light of it, as there are of the same class who make light of anything when they do not comprehend its importance, and are not enough acquainted with history to know its age and its influence.

Architecture, or the practice of building, is venerable with age and honorable with the accumulation of years, and none can be ashamed of it. From the first, human necessity required protection from the summer heat and winter's cold; and diseases, wounds and sickness begot the use of medicine, however simple, to allay pain, to heal sickness and restore to health; and the wickedness of men produced crime, which gave birth to the necessity for law to protect the innocent and punish the guilty; hence these three avocations—architecture, medicine and law, are the children born of the same parents, the frailties of our nature and the needs of our race, each simple and rude in their beginnings, but keeping pace with man in the increase of his knowledge and the enlargement of his faculties.

But in their advancement they did not keep abreast each with the other. Law nor medicine advanced to lead or to meet the wants of society, as did the other, and neither of them have left monuments to their skill and efficiency, either in material good or in song or story, that marks the achievements of the architect when the nations were in their infancy. They have nothing in Egypt to compare with her pyramids, or her broken entablatures and fallen columns, broken and fallen, but wonderful even in their ruin, and eloquent with the history of the architects who, in science and knowledge, had outstripped all others. There is no remembrance of either, which has come down the aisles of time, in history or in their technical works, from cultured Greece or classic Rome, which can stand with the genius of those who designed their amphitheatres and their temples; while later yet St. Peter's was built, before medicine knew the functions of the heart or had discovered the circulation of the blood; and St. Paul's had amazed the world with the symmetry of its proportions and the grandeur of its magnitude before Blackstone wrote his commentaries, and law was in a formative state. Since that time law and medicine have been pushed by means of technical education which has been provided in universities and other institutions of learning, while architecture has made such progress without these adventitious aids, that the high plane to which it would have attained with them would have been the envy of the others. Thus by means of both a liberal and a technical education the former two are more sought after by men of education than is the other; and this mistake would not be so often made by men of merit if equal facilities were provided for the technical education of each. I do not see any sound reason why the state should make discriminations in providing facilities for the education of two of these branches and none for the other. It is true, there is not the glamor and show in ours there are in the others, nor is there the room for incapacity, but if the necessity for this chair in our university is rightly apprehended by our law makers they will not be long in making suitable provision for it. I have not time at the present, nor is it necessary, to investigate the cause of this discrimination which has been made against our profession; it is enough to know it has been done, partly because it has not been represented in the halls of legislation, as the other two have been, and partly from the mistaken idea that it was not of sufficient importance to provide for it. This feeling will give way as the light of truth breaks in upon the minds of the people and they better understand the functions, duties and responsibilities of an architect. This matter is of importance to the profession and is of equal importance to the public, and should be insisted on continually, for the public will have to understand that it is for their interest before we can succeed in its attainment.

This subject is intimately blended with the bill for the regulation of the practice of architecture which we are preparing to present to the legislature; it is blended with it because a profession of sufficient importance to require a license for the protection of the people before it can be practiced should require suitable proficiency to be made in the science and knowledge attaching to that profession, and ample means should be made for the attainment of this proficiency. Do you not believe that if there had been an architectural department in our university, as there is for law and medicine, that the legislature would not have enacted some law, on its own motion, at least similar to the one we are asking for? Because it is an unnatural father who will disown his child. Graduation and license are linked together. I do not wish to be understood as advancing the idea that no man should be allowed to practice architecture unless he has gone through the curriculum which would be adopted in an institution of learning before he could be examined and licensed to practice, any more than the student of law or medicine is required to do so, but only that the same opportunities should be given the one as are given the other, thus putting each upon an equal footing; but I do insist that men should be examined and licensed by competent authority before they are allowed to practice. Many persons have fallen into the error that architects desire the enactment of a law requiring examination and licensure before practice can be followed, from a desire of respectability and self-interest. This is a mistake, for as a class, they have too much self-respect for any desire for factitious respect, and sense enough to wish only to pass in the light of their own merit and individuality rather than in a borrowed light which might be given by a recognition from the state; neither is it from a selfish motive that the enactment of this law is desired, for I know of no facts showing them to be more selfish than other classes; but we know enough to justify us in the attempt to get such a law for the protection of the people. Law and medicine have such laws and the man would make himself contemptible who brought such a charge against lawyers or doctors. They advocated such protection, not for themselves only, but for the people, because each in their own profession were better qualified to detect charlatans and impostors than were others, and what the facts are in their case are exactly the facts in our case.

We cannot expect success if each is trying to work the injury of others by depreciating all merit, and, by innuendoes and evil speaking, seeking to pull others down that we may rear ourselves upon their ruins. Remember, that if we are to accomplish anything, it is to be by a united effort, and to attain to a united

effort self-respect and respect for others must unite us into a band of workers, each rejoicing in the success of his associates.

What I have said to you is for the best interests of our association, and, in the hope that these suggestions will be acted upon, each of us can have the assurance that we will attain the high ends for which we are united.

On motion of J. J. Kane, of Fort Worth, it was resolved that the thanks of the association be tendered President Dodson for his masterly address, and that the address be spread upon the minutes and published in the next annual report in full.

Moved by George E. Dickey, of Houston, that the reading of the minutes by the secretary be dispensed with, as each member of the association was in possession of a copy. The motion prevailed.

The Executive Committee reported the following architects as new members of the association:

Geo. F. King, El Paso; Burt McDonald, Austin; M. McQuirk, Dallas; J. R. Gordon, San Antonio; Geo. S. Kane, Fort Worth.

The chairman of the Executive Committee desired further time for a full report from the committee, which was granted.

The bill entitled "An Act to Regulate the Practice of Architecture in the State of Texas," was called up, and, after able discussion, it was moved by A. O. Watson, of Austin, that further discussion on the bill be laid over until Wednesday morning so as to enable the newly elected members to study the bill carefully.

Architect George W. Stewart, of Dallas, by request of the association gave a brief, well-worded history of the character and workings of the Dallas Board of Architects. At the conclusion the thanks of the association were tendered Architect Stewart.

The following resolution was offered by A. O. Watson, of Austin: *Resolved*, That the question of a uniform contract between client and architect, and client and contractor be set aside for discussion Wednesday.

Carried.

The treasurer, Eugene T. Heiner, submitted the following report:

#### FINANCES.

Amt. received from former treasurer, W. W. Larmour.....	\$125 50	
Amt. received from membership fees.....	35 00	
Amt. received from annual dues.....	95 00	
Paid order secretary, W. W. Larmour.....	\$ 75 00	
Balance in hands of treasurer.....	180 50	
	\$255 50	\$255 50

Respectfully submitted,

EUGENE T. HEINER,  
Treasurer T. S. A.

On motion of J. J. Kane, of Fort Worth, the report was referred to an auditing committee.

The president appointed the following members on the above committee: Geo. E. Dickey, Houston; A. O. Watson, Austin, and Frank W. Kane, Fort Worth.

The following is a complete list of members in good standing:

John Andrewartha, Austin,	Geo. F. King, El Paso,
A. B. Bristol, Dallas,	J. Larmour, Austin,
Albert F. Beckman, San Antonio,	W. W. Larmour, Waco,
Cortez Clark, Dallas,	Burt McDonald, Austin,
W. C. Dodson, Waco,	M. McQuirk, Dallas,
Geo. E. Dickey, Houston,	Oscar Ruffini, San Angelo,
Alfred Giles, San Antonio,	Natl. Tobey, Dallas,
J. R. Gordon, " "	W. H. Tyndall, Galveston,
Eugene T. Heiner, Houston,	Guy M. Tozer, Dallas,
Sam P. Herbert, Waco,	Geo. W. Stewart, " "
J. J. Kane, Fort Worth.	Albert Ullrich, " "
F. W. Kane, " "	Jas. Wahrenberger, San Antonio.
Geo. S. Kane, " "	A. O. Watson, Austin.

On motion of George E. Dickey the convention adjourned until Wednesday morning, 10 A.M.

#### WEDNESDAY—MORNING SESSION.

The association was called to order at 10 A.M., President W. C. Dodson in the chair.

By special invitation expressed by a unanimous vote of the association, James Wahrenberger delivered a well-considered and able address, at the close of which the following resolution was offered and accepted by a unanimous vote of the association:

*Resolved*, That the thanks of this association be extended to Vice-President Wahrenberger for his able and interesting address, and that they be spread upon the minutes and published in the next report.

The secretary read a congratulatory telegram from R. C. McLean, editor of THE INLAND ARCHITECT, of Chicago. It was resolved that the secretary be instructed to return sincere thanks to THE INLAND ARCHITECT for the interest manifested in the association's good work.

A motion by Burt McDonald, of Austin, that the bill "An Act to Regulate the Practice of Architecture in the State of Texas," be taken up and discussed. The motion was seconded by George E. Dickey and carried.

The bill was discussed and amended. The bill, after final revision, reads as follows:

*A bill to be entitled an act to regulate the practice of architecture.*

SECTION 1. *Be it enacted by the Legislature of the State of Texas:* That hereafter no person shall pursue the business or profession of architecture in this state except in accordance with the rules and regulations herein prescribed.

SEC. 2. Within thirty days after this act takes effect, it shall be the duty of the governor to appoint and commission a board of architects, to consist of three professional architects, each of whom shall be a citizen of the state, and shall have practiced the profession of architecture for at least the period of seven years. The members of said board shall hold their offices for the term of two years, and until their successors are appointed and qualified; but no member of said board shall receive any compensation for his services, nor shall the expenses of said board become a charge against the state. After the first appointments of said board, all subsequent appointments shall be made only from licensed architects within this state.

SEC. 3. Said board shall be styled the "Board of Architects of the State of Texas." They shall keep a record of all their proceedings and such records are hereby declared to be public records. The presiding officer of the board shall be *ex-officio* the custodian of such records; and copies of such records certified



by the presiding officer of the board and attested with the seal of the board shall be admissible in evidence in all of the courts of this state, and in all cases, civil and criminal, without further authentication. The seal of the board shall consist of a Texas star with the words "Board of Architects" around the margin.

SEC. 4. Within thirty days after their appointment, the members of said board shall meet at the capitol and organize by the selection of one of their number as presiding officer, and they may appoint one of their number to act as secretary of the board. When organized, the board shall have power to administer oaths and to take testimony upon all matters properly within their cognizance. Said board shall meet regularly at the capitol of the state once in every six months, at such times as may be designated in the minutes of the board, and at such other times and places as the presiding officer may designate, who is hereby vested with authority to call special meetings of the board for the transaction of any business properly within their cognizance. Notice of all special meetings of the board shall be given by publication in some newspaper published in the city of Austin for five consecutive days before such meeting, and in case it is known to the presiding officer that other persons may have an interest in such meeting, he shall also notify such persons by due course of mail.

SEC. 5. No person shall practice the profession or pursue the business of an architect without a license from the Board of Architects. Any person desiring to pursue such occupation shall apply to said board for license, and thereupon the board, at some regular or special meeting, shall proceed to examine the applicant as to his qualifications, and with special reference to the proper construction of buildings, the strength of materials, the laws of sanitation as applied to buildings, and the ability of the applicant to make practical application of such knowledge in the ordinary professional work of the architect. If such examination is satisfactory to a majority of the board, a license shall issue to the applicant, under the seal of the board, authorizing him to practice the profession of architecture within the limits of this state. All members of the Texas State Association of Architects shall be entitled to license without examination.

SEC. 6. All licenses shall be subject to revocation by the board of architects, for gross ignorance, negligence, recklessness, or dishonest practices; but, before any license shall be revoked the holder thereof shall be entitled to at least ten days' notice of the time and place for the hearing of the accusation against him and shall be informed of the nature of such accusation. He shall also be entitled to process for his witnesses, and to be heard by himself or his counsel or both in open, public trial. And no license shall be revoked except by the unanimous vote of all the members of the board.

SEC. 7. If any person shall pursue the business or occupation of an architect in this state, without first obtaining a license therefor, in accordance with the provisions of this act, he shall be deemed guilty of a misdemeanor and upon conviction, shall be fined not less than one hundred nor more than five hundred dollars. But nothing herein contained shall be construed to prevent any person in this state from planning or supervising the erection of his own building; nor shall the provisions of this act apply to architects from other states who may desire to compete for some special building, public or private, and who may visit the state in person for such special purpose; nor shall it apply to students or employees of licensed architects within this state, acting for and by authority of such licensed architects.

SEC. 8. The fee for each license shall be \$10, which shall be paid to the board of architects upon delivery of the license, and the fund thus accrued may be expended by the board for the payment of their traveling and other expenses. An itemized account shall be kept of such receipts and expenditures, which shall be reported to the governor thirty days before the regular meeting of each legislature.

The Committee on Revision of the Constitution and By-Laws, J. J. Kane, Samuel P. Herbert and Eugene T. Heiner reported no change necessary and asked to be discharged from further consideration on that subject.

On motion of Nathaniel Tobey the committee was discharged.

The following resolution was offered by Burt McDonald, of Austin:

*Resolved*, That the Uniform Contract adopted by the American Institute of Architects, the Western Association of Architects and the National Association of Builders be adopted by the Texas State Association of Architects and recommended for their use when practicable.

The resolution was adopted.

After an able discussion between members it was moved by George E. Dickey that the chair appoint a committee of three members to report at the evening session upon a uniform contract between client and architect.

The resolution was passed and the chair appointed the following members as a committee on contracts: George E. Dickey, A. O. Watson, Nathaniel Tobey.

On motion of J. J. Kane, of Fort Worth, Mr. E. F. Redfield was admitted as an honorary member to the association.

The following resolution was offered by J. J. Kane.

*Resolved*, By the Texas State Association of Architects, that the Galveston *Journal of Commerce and Building Record*, be adopted as the official organ of the association.

Adopted.

#### WEDNESDAY—AFTERNOON SESSION.

The association was called to order at 2 P.M., President W. C. Dodson in the chair.

The auditing committee reported the statement of the treasurer correct and on motion of Burt McDonald the report was received.

The Committee on Uniform Contract between Client and Architect submitted their report, together with a form of contract, and on motion of J. J. Kane, seconded by James Wahrenberger, the report and uniform contract was adopted and the committee continued.

J. J. Kane, chairman of the Executive Committee, submitted the following report:

*To the President and members of the Texas State Association of Architects:*

GENTLEMEN,—The Executive Committee beg leave to report that we have held our annual meeting and transacted all the business that came before our committee. We find the annual report of the secretary correct and very satisfactory.

The resignation of N. J. Clayton and W. W. Dudley was received. We also elected as members of the association, George F. King, El Paso; Burt McDonald, Austin; M. McQuirk, Dallas; George S. Kane, Fort Worth, and I. R. Gordon, San Antonio.

We find the affairs of the association in a healthy and prosperous condition, and a bright prospect for the future.

J. J. KANE,  
Chairman Executive Committee.

Moved by Nathaniel Tobey that the report be received and ordered filed. Carried.

On motion of J. J. Kane, of Fort Worth, that \$75, or so much thereof as may be necessary, be appropriated to pay the current expenses, and for publishing 500 copies of the annual report of the secretary. It was so ordered.

It was moved by James Wahrenberger that the Executive Committee, in conjunction with the president of the association, be authorized to employ a suitable person to aid in properly presenting before

our legislative bodies the act entitled "An Act to Regulate the Practice of Architecture in the State of Texas." The motion prevailed.

Mr. James Wahrenberger presented the following resolution:

*Resolved*, That a committee of three members be appointed by the president to form a code of rules to govern members of the association in taking part in architects' competitions and to report at the next annual meeting.

The resolution was seconded by George E. Dickey, and carried.

The president appointed the following members as the committee: James Wahrenberger, J. J. Kane, W. W. Larmour.

The following resolution was offered by Burt McDonald, of Austin:

*Resolved*, That the secretary be requested to procure one of the group pictures of some of the architects, and that they be sent to Mr. R. C. McLean, editor of THE INLAND ARCHITECT.

Adopted.

On motion of J. J. Kane, Fort Worth, that a committee of three members be appointed by the chair to make nominations for officers for the ensuing year. W. W. Larmour offered as a substitute, that the election be made by open ballot. The amendment prevailed.

The results of the ballots were as follows: For president, W. C. Dodson; first vice-president, James Wahrenberger; second vice-president, Nathaniel Tobey.

Executive Committee: Chairman, J. J. Kane; secretary, W. W. Larmour; treasurer, Eugene T. Heiner; Samuel P. Herbert, George E. Dickey, George W. Stewart.

In the ballot for place of holding the next meeting Dallas, Fort Worth, Galveston, and San Antonio were placed in nomination. San Antonio receiving the majority of the votes cast, it was selected as the place for the next annual meeting.

The following resolution was offered by George E. Dickey:

*Resolved*, That a vote of thanks be tendered Mr. Lane Orand for the use of the new McClelland Hotel parlors and courtesies extended.

Motion prevailed unanimously.

The following resolution was offered by J. J. Kane:

*Resolved*, That the thanks of this association be tendered the *Day*, of Waco, for their kindness in publishing the proceedings of our meeting.

Carried.

The following resolution was presented by George W. Stewart:

*Resolved*, That the president shall appoint a committee of five members whose duty it shall be to endeavor to arrange with railroads for excursion rates for architects attending the next convention.

The president appointed the following members as the committee: James Wahrenberger, George E. Dickey, Frank W. Kane, W. W. Larmour, Burt McDonald.

The following resolution was offered by A. O. Watson:

*Resolved*, That the thanks of this association be and are hereby extended to the president and secretary for their able services rendered during the past year.

The resolution was adopted.

The following resolution was offered by Samuel P. Herbert:

*Resolved*, That the press throughout the state be tendered the thanks of this association for courtesies shown.

The resolution was adopted.

On motion by A. O. Watson, the Texas State Association of Architects adjourned, to meet at San Antonio the third Tuesday in January, 1890.

## Association Notes.

### THE ST. LOUIS ARCHITECTURAL LEAGUE.

The League is rapidly gaining in membership, and judging by the recent competition for a street entrance to a residence, the standard of draftsmanship is above the average. In this competition, which closed March 2, there were seventeen entries.

On that evening, at the invitation of members of the club, Mr. W. H. Crannidge, of THE INLAND ARCHITECT, gave a brief sketch of the methods and work of the Chicago Architectural Sketch Club, which was listened to with interest by the assembly. A vote of thanks was passed to Mr. Crannidge. The members of the League average younger than those of the Chicago club, but they seem to be imbued with the same progressive spirit, and they deserve success.

### CHICAGO ARCHITECTURAL SKETCH CLUB.

The regular monthly meeting of the Chicago Architectural Sketch Club was held at the club rooms in the Art Institute building, Monday, February 12, President Williamson in the chair.

The minutes of the preceding meeting were read by Secretary C. A. Kessell, and approved as read. Motion to admit non-residents to membership was laid upon the table after a general discussion.

On the question of appointing a jury on the Clark medal, Mr. Kessell suggested that the number of the jury be three. The chair suggested five; Mr. O. C. Christian seven. By a vote of the members the number of five was decided upon, it being understood that two of the five should be non-residents, and that none of the resident members should be connected by regular or honorary membership with the club, and that one of them should be a sculptor. The object of this is to have it go out that there is to be no favoritism in the competitions for the Clark medal.

On an informal ballot the following candidates were found to be put in the field by their friends: Dankmar Adler, J. L. Silsbee, C. M. Palmer, Henry Ives Cobb, S. A. Treat, F. M. Whitehouse, J. J. Egan, S. S. Beman, W. W. Clay, W. W. Boyington, I. K. Pond, P. C. Lautrup, Loreda Taft (sculptor), Lawrence C. Earle, S. W. Volk (sculptor), D. H. Burnham, J. J. Flanders. Ninety-one votes being cast, and Messrs. Adler, Cobb and Taft receiving, respectively, 15, 12 and 18, they were by vote declared to be the resident members of the jury. Prof. N. Clifford Ricker, of the Illinois State University, and Richard M. Hunt, of New York, were selected as the non-resident members.



### Modern Hardware.

A RECENT writer argues that as art is within the reach of everyone, if it does not impress itself upon every product of social life it is due either to a defect of education or to a false definition of art. This statement must, however, be modified by the consideration that the "art idea" is the product of slow growth, and that it is only after the material needs developed by the advancement of society in various directions have been met with that the same efforts can be continued into a higher profession—that of taste. From this point of view the great development of ornament and decoration which we see in the locksmith's art of the middle ages, is explained partly by the immense activity of metal workers in the production of the weapons and armor which the warfare of that period demanded. In our time and country it is evident that we have new conditions of life to deal with; skill and ingenuity, aided by the great advances of modern sciences, have been offered a splendid field for the development of our natural resources, and manufactures organized on a large scale are carried to a greater degree of mechanical perfection than ever before. It is interesting to consider the new relations which many of our industrial products have assumed under the immense stimulus of inventive skill and new discoveries. In some cases it would seem that a new faculty of mind is appealed to in the keen enjoyment which the sense of perfect mechanical adaptation affords. On the other hand, a universal effort to express the idea of beauty (shown by the great styles of ornamental art which embody the artistic growth and sentiment of ages) is clearly determined by laws of mental action as real as those of mechanics. If we examine, for instance, any article of common use, it is evident that a right mechanical adaptation has no necessary connection with beauty of effect or decoration; the former is concerned simply with the character, size and shape which will best adapt the article to its intended use. This forms the skeleton which the designer uses, and his art consists in the choice and arrangement of ornament so as not to interfere with or obscure the natural use of the article, but to express, in addition, an idea of character and beauty, thus combining elegance with fitness.

It has been well said that beauty of effect or decoration is no more a luxury in a civilized state of society than warmth and clothing are to every state, for the mind makes everything necessary that it is capable of permanently enjoying. While these ideas are not new, their appreciation is gaining force to the end that life becomes interesting in the effort to make a right combination of the useful and the beautiful under the complicated conditions of modern surroundings.

Architects, by reason of their artistic training and taste, appreciate the development of decorative art based on correct principles and in harmony with those essentials which were established long ago. Every man's impressions are largely the product of his times and environments, and as no one can live in the past ages, so should appropriate expression be found for the old feeling in a new form. Our efforts in industrial arts should, therefore, be directed to a production of articles combining mechanical efforts with a high class of artistic design. The best results can only be obtained by gradually combining the skill of the designer with the knowledge of the manufacturer.

The interesting articles now being published in the *INLAND ARCHITECT*, by Mr. William Morgan Peters, suggest, indirectly, some thoughts upon what might be called, from a decorative standpoint, a kindred subject, namely, modern builders' hardware. Although it is only within the past four or five years that this class of work has received, in this country, any attention worth speaking of as a means of producing artistic decorative effect; until then it seemingly had been looked upon as a somewhat trivial though necessary detail; occasionally some attention was given to it in regard to durability and utility, but nothing more. It is true that some attempts were made to obtain decorative effects, but so entirely unintelligible were these efforts that the effects produced were not only artistically ungrammatical, but positively vulgar to the educated eye, the employment of a professional designer being unthought of by those who were engaged in producing such work; the design, or "pattern," was left to the humor or idiosyncrasies of the "pattern maker," whose untrained perceptions of decoration usually led him into crude mannerisms or into a cheerful production of barbaric monstrosities by the blind combination of unrelated styles of ornament, resulting in products whose only virtue was novelty, and which in attractiveness and appropriateness resembled the caricatures upon cheap Japanese fans, their only effect being startling.

The absurdity of the earlier efforts in this direction, and indeed of some attempts of recent date, is best shown in the absence of the designs themselves by the truly artistic names given them, such as the "Brocade pattern," the "Venetian pattern," "Ekado pattern," "Upholstered or Cushion pattern," etc., names unknown to Owen, Jones or Racinet, but each of which it was fondly hoped by its sponsor would some day be known as American Renaissance.

There were, of course, many architects who would have been glad to use better and well designed work of this kind if it could be obtained, but manufacturers were slow to yield to the demand for improvement, being unable to comprehend the requirements, until, finally, at the request of several leading members of the profession who had vainly tried to overcome the apathy of manufacturers of this class of work, the Yale & Towne Manufacturing Company, whose locks have been for years, and still are, recognized as the standard of excellence, not only in America, but throughout the world, was induced to turn its attention to the question of producing appropriate designs in general builders' hardware, and the progress which has been made in this branch of industrial art within the past three or four years, is almost entirely due to the efforts of this company, and instead of the novelties referred to above, it is now possible to obtain admirable work in any of the recognized styles of ornamentation.

The good work done by this company has directed attention to this class of products as an important auxiliary of interior decoration, and has shown that in this as in other things, the useful can be made beautiful.

The leading architects and interior decorative artists have been quick to recognize this advancement, and finding that genuinely artistic work of this kind can be produced, they have done much to encourage it, and it is rapidly becoming understood by people of good taste, that, it being possible to obtain correct and appropriate work of this kind, they must use the same judgment in its selection as in the decoration of their walls or the selection of their bric-a-brac.

No branch of industry has more varieties than that of builders' hardware, and in its selection for a residence, the greatest care should be taken, as by lack of this attention to this detail, great annoyance is often caused; poorly applied knobs become loose, hinges crush down, thus causing the doors to sag, and the locks to refuse to operate; windows will not lock, and numerous difficulties arise, until the cost of repairs, to say nothing of the injury to the finish of the doors, and other work, in the end causes the so-called cheap hardware to be the dearest. In addition to all this, the element of security is entirely lost sight of by some manufacturers—their only object being to produce something which can be sold for little money—resulting in productions which possess merely the semblance of that security which is so important in locks and window hardware. It often happens, even now, that when the greatest care is taken in the other details of both private and public work to produce harmony in designs and colors, and when woodwork is scrutinized to discover blemishes in either material or finish, the selection of the hardware is left to the esthetic taste of the contractor or the dealer, whose knowledge of art is acquired by the contemplation of nickel-plated stoves and decorated coal buckets, both of whom follow lowest prices as the direction of least resistance, and then exert a further pressure on the manufacture in the same direction, the resulting appropriateness of design, color and workmanship being what should be expected from such a combination of disinterested artistic talent.

The above mentioned company was founded at a time when the security of its locks and the perfect mechanical adaptation of all its products were the chief considerations, and it has achieved a reputation for its manufactures over the whole civilized world. It now occupies an independent position among manufacturers, standing for that high plane of workmanship in all its products which it has so long steadily maintained. To this end it has been necessary to decline a competition based on price alone, since the sacrifice of thoroughness of construction and durability which such competition necessarily involves, is incompatible with true economy and value in hardware as in all other products. Experience shows that a right standard of mechanical construction in the matter of builders' hardware is difficult to obtain; compromises involving a sacrifice of efficiency and thoroughness to cheapness must constantly be opposed. For the most part, architects and owners desire to know simply where, at a moderate cost, locks and hardware can be obtained which, by thorough mechanical construction and simplicity of design, will afford proper security and convenience, and be in harmony with their surroundings. These conditions have been fulfilled in the regular line of builders' hardware produced by this company. That the best hardware is the cheapest in the end is not open to serious question, although naturally every one prefers to reach this conclusion by independent investigation. Under the incentive of a low first cost as the chief consideration, the art of lock making is being rapidly reduced to the level of nail making, and the choice then becomes largely a matter of indifference. The Yale & Towne Manufacturing Company makes an extensive line of builders' hardware suitable for all styles of buildings and in all varieties of finish. The prices of this hardware vary greatly according to the different finishes and the elaborateness of the work, and none of its products are sold at such prices as would compel it to sacrifice quality. Architects and those building houses should ascertain by inquiry from the above company the actual cost of fitting houses or buildings with its hardware throughout, and not be misled by the statements of interested contractors or manufacturers that its prices are exorbitant. It is the exclusive licensee among hardware manufacturers of the Bower Barff Rustless Iron Company, and produces hardware in wrought-iron, cast-iron and steel, finished with the Bower Barff rustless finish. This finish is a lustrous blue-black, which is absolutely unchangeable under exposure to the weather, and is very appropriate for public buildings throughout, and attractive in many situations in private dwellings.

In the execution of special designs by architects and smith work, such as wrought-iron hinges, escutcheons, grills, etc., finished by the Bower Barff process or otherwise; also in gold, brass, silver, bronze or copper, it is producing work in which the same high standard is employed which has made the company's name famous throughout the world.

ONE of the interesting advertisements in this journal calls attention to a valuable roof covering, known as the "metallic hip shingle." It has been practically tested throughout Ohio and in many parts of Indiana, and has received universal praise from all architects and owners who have adopted it in their buildings. The claims made for this metallic shingle are, complete protection to the hips for each course of shingles or slates; preserving the symmetry of the building, and neat finish to the roof; can use points cut from valley shingles to put on the hips, thus saving four shingles in each course; saving of time; a man can lay three times as much in a day; holds the shingles firmly, without exposing the nails; can readily be put on old roofs. Full particulars can be learned by addressing the Metallic Hip Shingle Company, Toledo, Ohio.



### Our Illustrations.

House for Mr. F. Greeley, Winnetka, Ill.; J. L. Silsbee, architect.

Boston Sketches, Part VI; suburban work; J. A. Schweinfurth, Boston, del.

Bedroom furniture, designed and produced by William Morgan Peters, Chicago.

Residence for General Walter C. Newberry, Chicago; W. L. B. Jenney, architect.

Residence for Mr. S. K. Martin, corner Twenty-sixth street and Michigan avenue, Chicago; J. A. Thain, architect; cost \$80,000; steam heat, hardwood throughout, mosaic floors.

Chicago Architectural Sketch Club, competition for a stone mantel for hall. First place, T. O. Fraenkel; second place, Oscar Enders; third place, W. E. Kleinpell; special mention, R. A. Dennell, A. Heun, C. D. Schaefer.

Passenger station at Milwaukee, Wis., for Chicago & North-Western Railway Company, Charles S. Frost, Chicago, architect. The building will be located on the lake shore, fronting the park, and occupy substantially the site of the old station. The Wisconsin street portion contains the main entrance, ladies' waiting room, dining and lunch rooms, on first floor; second and third stories, hotel accommodations to be used in connection with the restaurant. That portion of the building running parallel with the tracks, contains the large general waiting room, smoking and baggage rooms and main lavatories. The general waiting room is to have an iron and tile floor, with face brick walls, and an open timbered oak ceiling. Ladies' waiting room has been designed with the idea of giving as much retirement as possible; at the same time the windows command a view of the park, the lake and the trains. It is to be furnished like a sitting room. The exterior of the building to be of stone from the ground up to first story window sills; above this, red face brick and terra-cotta. The main roof to be of slate. The tower will be 176 feet from the sidewalk to the finial. Roof of tower, red Akron tile, with copper trimmings. The train shed will be 400 feet long. Contracts have been let. The entire building to be ready for occupancy the middle of October. The cost complete, including train shed, will be \$150,000.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence of Mr. John B. Kirk, Evanston, Ill.; Edbrooke & Burnham, architects, Chicago.

Residence of Colonel E. H. Haskell, Newton Centre, Mass.; O. F. Smith, architect, Boston.

Industrial Series—Exhibit room, western office, of the Yale & Towne Manufacturing Company, Chicago.

Residence of Mr. Thomas Chalmers, Chicago; Treat & Foltz, architects. Front of Connecticut brownstone; cost \$35,000.

Residence of Mr. H. S. Leech, Saratoga Springs, N. Y.; S. Clifford Slocum, architect, Philadelphia. First story of Jersey redstone, second story, timber work with rough-cast plaster.

The Victor Emanuel arcade connects the cathedral square with that of La Scala, and is the most noteworthy structure of the kind in Europe. The arcade is in the form of a Latin cross with an octagon at the intersection, over which rises a cupola to the height of 180 feet. The octagon is adorned with frescoes representing Europe, Asia, Africa and America. Gius. Mengoni, the architect of the structure, lost his life by a fall from the portal in 1877.

Monaco is distinguished as being the smallest principality in the world, and still more distinguished as possessing the most elaborate and attractive of gaming establishments. The Casino, of which two views are presented, was designed by Garnier, with an associate, and is a fair example of Garnier's power in this style. The building overlooks the sea from its position high up on the hill, and is a most attractive object to the vision as it rises out of its base of palms and tropical foliage. The concert hall is most elaborate in detail and complete in all its appointments. The gaming rooms are done in an Indian style, which, while not strictly in harmony with the work generally, is pleasing and satisfactory in treatment. Yet the green of the "table covers" seems to be more attractive than the rich Indian and Renaissance decorations.—I. K. P.

### New Publications.

NOTES ON THE ART OF HOUSE PLANNING. By C. FRANCIS OSBORNE, architect (Assistant Professor of Architecture in the Cornell University). Published by W. T. Comstock, No. 6 Astor Place, New York. Price \$1.00. Sent by mail free to any part of the world.

The above is a clearly printed volume of 106 pages, thoroughly illustrated. The subject matter of the book consists of a compilation of a portion of the notes used by the author in his lectures before his classes, and may be said to cover the ground intelligently and, without a pretense to completeness, thoroughly. It is a book intended more for students than practiced professionals, yet there are even of the latter those whose experience may be reinforced by a careful perusal of its contents. Laying down as truisms that "planning is nearly, or quite, an exact science," and "as our houses are built to live in, the purpose they are expected to serve is that we shall be enabled to live in them comfortably, conveniently, and decently," the author proceeds with them as the text, to discuss the question under twelve chapters devoted respectively to: Planning—method of investigation; thoroughfares; entrances; dining and breakfast room; dinner

route; aspect; drawing room and parlor; library; kitchen; billiard room; bedroom floors, and a concluding chapter summarizing the arguments.

No. 1 of Volume 1 of the *Beacon*, a journal devoted to photography in all its phases, is a welcome visitor to the INLAND table. It is published by the Beacon Publishing Company, Tribune Building, Chicago. Price, \$1 per annum. To announce that the editor-in-chief is Dr. John Nicol is sufficient to establish the character of this beautifully printed monthly, and to insure its success among professional and amateur photographers, as well as artists, architects and scientists, to whom it addresses itself. The contents of the initial number embraces a number of valuable papers, among which may be mentioned: "Concerning Exposure," "On Printing," "Optical Lantern Condenser," "Intensification and Brilliancy." The editorial comments are pithy, and the letters from correspondents and answers to the same make very interesting and instructive reading; so, too, the reports of meetings.

### Mosaics.

AN excellent opportunity to travel quietly and harmoniously to the City of Mexico, and escape March winds is given by the Chicago & Alton railway. The Pullman palace hotel car, International, leaves Chicago March 12. The trip will consume eleven days, frequent stops will be made, and the entire cost is \$150.

For architects and builders interested in hardwood lumber, it is desirable to know just where a large collection is located, and the completeness of the stock, in variety and quality. As a matter for future reference, it may be well to mention the firm name of Hayden Bros., of Chicago, who are known among the most extensive operators in all the native hardwoods, such as cherry, oaks, beech, ash, birch, red gum, red cedar, walnut, butternut, California redwood, hickory, elm, basswood, maple, whitewood, etc. Their stock embraces millions of feet, and their yards, dry kilns, etc., cover almost seven acres of territory.

THE Joseph Dixon Crucible Company (crucibles, graphite paints, pencils and lubricants), Jersey City, N. J., write: "The year 1888 was chiefly notable with us for the large increase in the business of graphite specialties made by us, such as silica graphite paint, graphite pipe joint grease, graphite grease, and this verifies a prediction made by us years ago, that graphite would prove to be one of the greatest smaller articles in the arts. The total amount of business done by the Dixon Company in 1888 was larger than in any previous year. We had to increase our plant by putting in one large new blacklead mixer, one large paint mixer, and one 100-horse power steam boiler. We are heating a large portion of our buildings here by exhaust steam, having equipped for that purpose."

THE William Powell Company, of Cincinnati, seem to have solved the rubber stopper problem in plumbers' supplies by the invention of the Powell Patent Star Stopper, which is designed to overcome all the heretofore objectionable features that obtained in the use of rubber for plug and faucet purposes. Architects, contractors and house owners are familiar with the other devices and it is only necessary to state the method of construction of the Powell stopper to have its merits fully understood and its points of difference made plain. Its whole construction comprises a true and perfectly formed brass core shaped to the purposes intended, and over this metal core a complete vulcanized rubber covering of a proper thickness and elasticity. The metal core projects through the rubber far enough, in the plugs, for the insertion of rings, and in the faucet plugs for connections. Of course, such a combination must make a double stopper, and in the case of basin, bath and sink plugs be sufficiently weighted to insure fixedness in the socket.

### Business Outlook.

OFFICE OF THE INLAND ARCHITECT. }  
CHICAGO, February 28, 1889. }

A great many promoters of industrial and building enterprises are awaiting the result of the downward tendency in prices of raw material, such as lumber, iron, steel, coal, ore, and a variety of other products which can hardly come under the heading of "raw material." Some careful business men think that prices have reached bottom, and that any further delay in covering requirements is fraught with danger. Other equally reliable business men think that there is a downward tendency in all markets and all channels, which will make it dangerous, in fact, disastrous, to contract largely for supplies. On one hand, it is said that there will be no general steadiness in prices as long as railroad-building requirements are unclosed. On the other hand, it is said that the enormous productive capacity of this country must and will succeed in crowding prices down to at least ten per cent lower than they are today. The iron and steel makers throughout the country are quite busy, though by no means crowded. Lumbering operations are being prosecuted zealously in all sections, and spring supplies will be as large as manufacturers are accustomed to have at the opening of the spring trade. Money for all business requirements is abundant, and the rate of interest is such as to encourage the prosecution of new undertakings. Business, on the whole, is in a healthy condition. The builders and contractors, so far as they have given expression to their opinion, expect to be fully as busy as last year. Ship owners, mill owners, mine operators, railroad managers, and the busy men in all channels of trade and activity, are preparing in a conservative way for the spring and summer. Apparently there are no evidences of an overcrowding of the channels of trade. Borrowers are sailing close to shore. The mortgaging of properties is not endangering the solvency of borrowers. The earning capacity of the people is increasing, rather than decreasing, taking the whole country into account. Producing interests are creeping along safely, watching market requirements with wisdom, and not rushing forward. Good opportunities are enticing capital in the southward direction. The experience of the past ten years is being applied to the upbuilding of industries, trade and markets, upon a sound basis.





INDUSTRIAL SERIES.

EXHIBIT ROOM, WESTERN OFFICE OF THE YALE & TOWNE MFG. CO., CHICAGO.

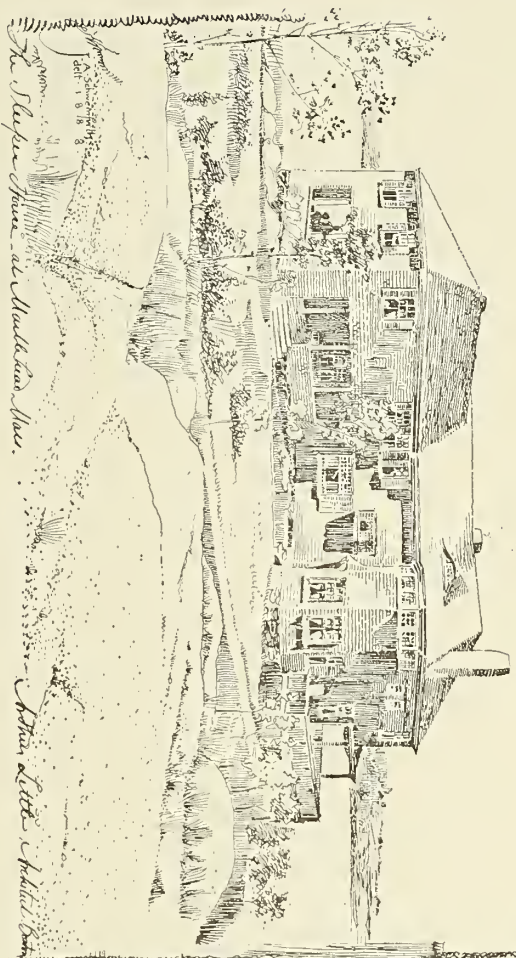
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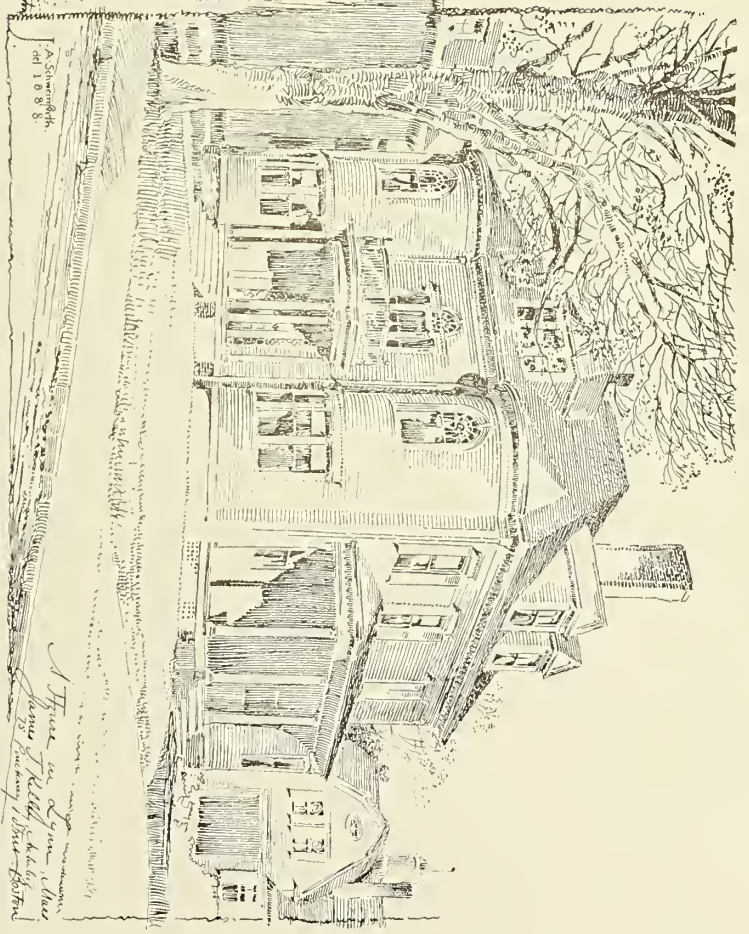


BOSTON SKETCHES. VI.  
SUBURBAN AND COUNTRY HOUSES

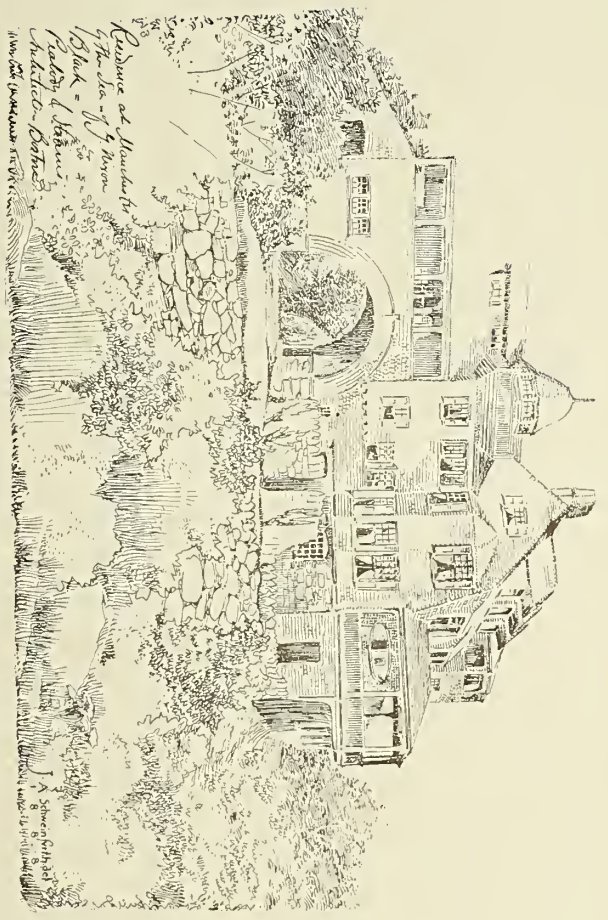


*The Stephen House at Waltham Mass.*

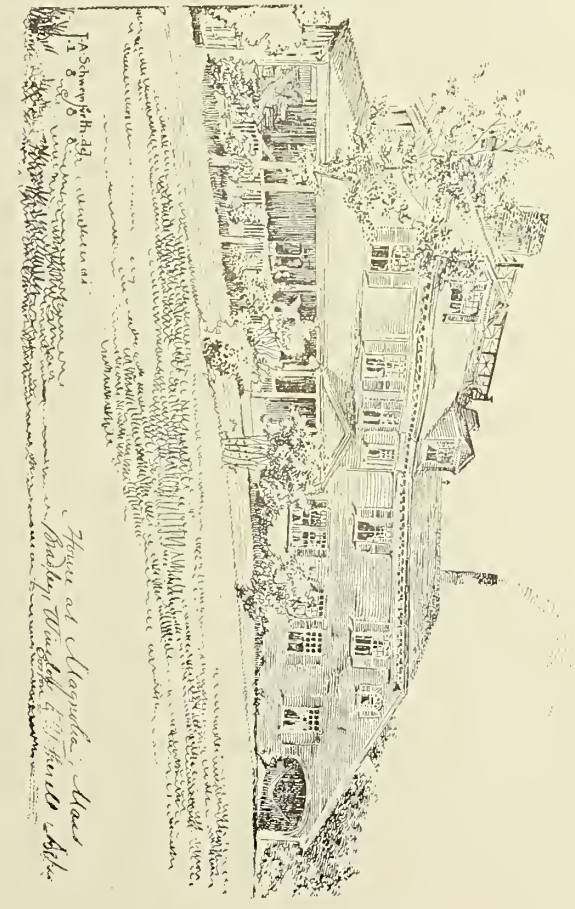
*John Little & Philip Bond*



*House in Lynn Mass  
James T. Hilditch & Co.*



*Residence at Waltham Mass  
of the late Mr. Wm.  
Black - 1898  
Foster & Brown  
Architects Boston*



*House at Waltham Mass  
Foster & Brown  
Architects Boston*

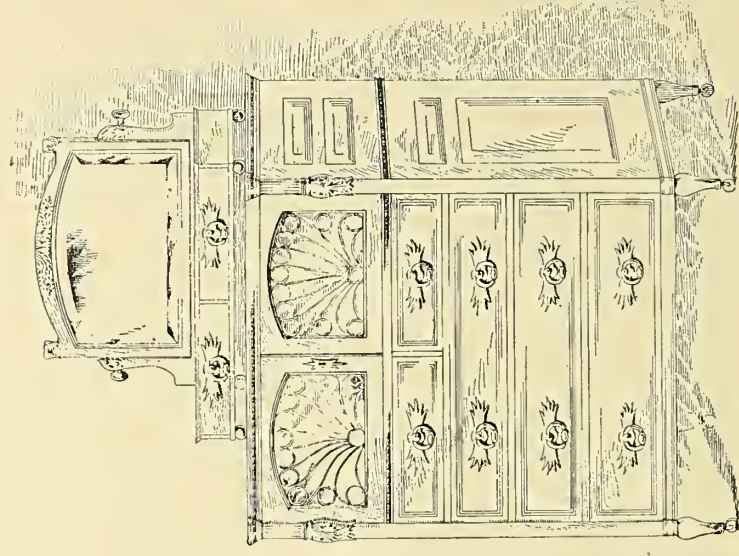
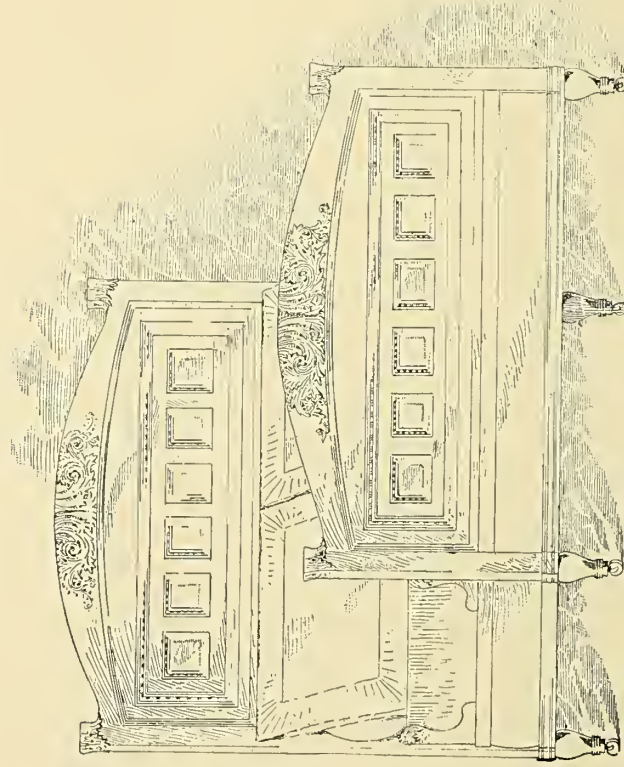
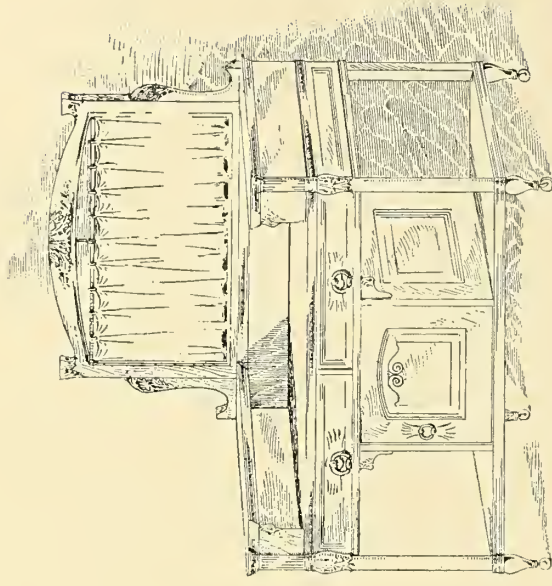
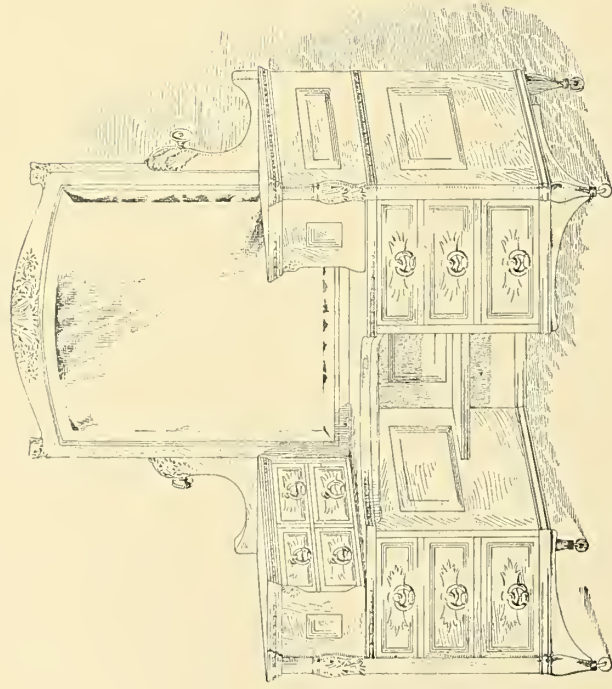












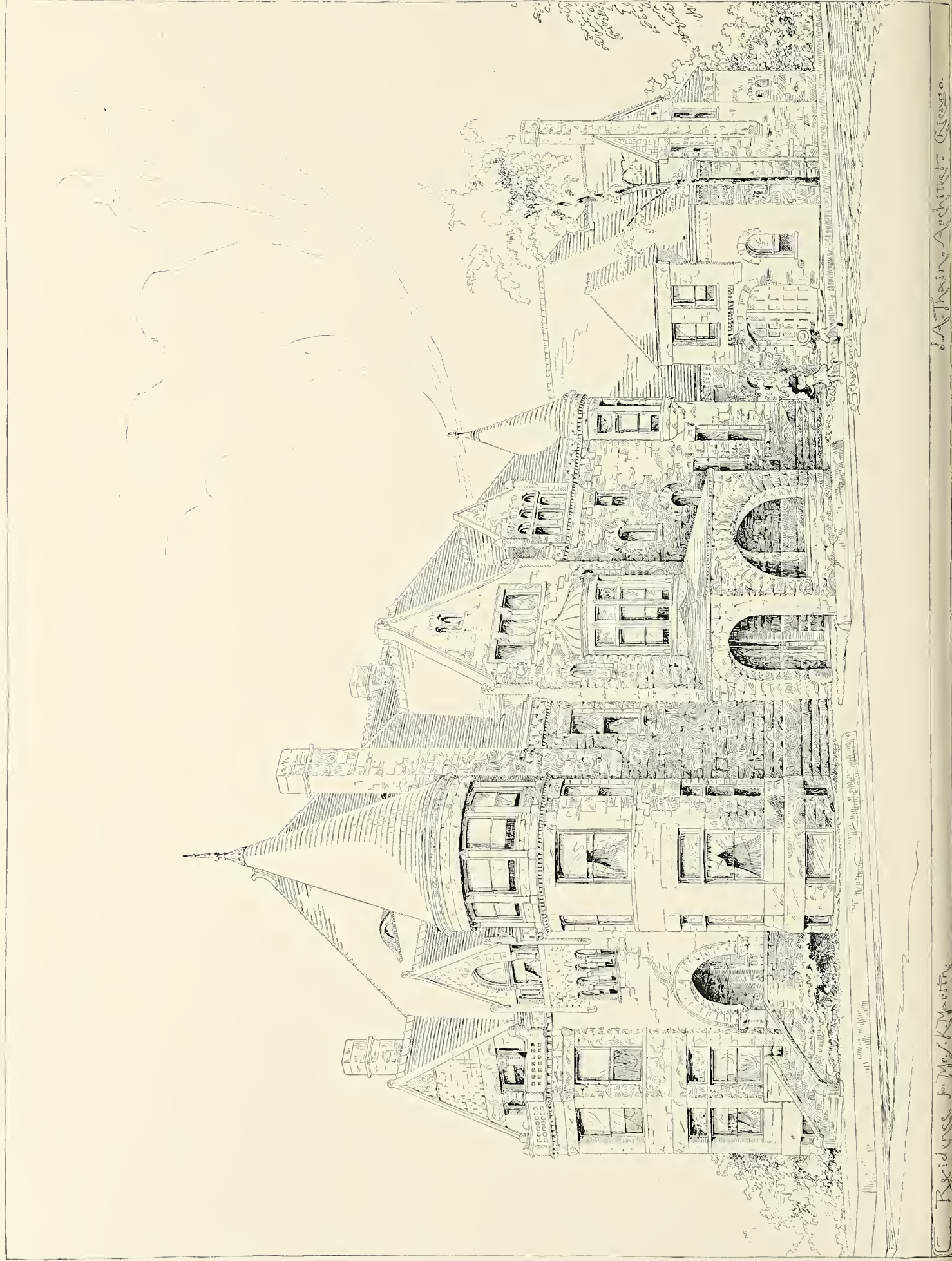
BEDROOM FURNITURE.

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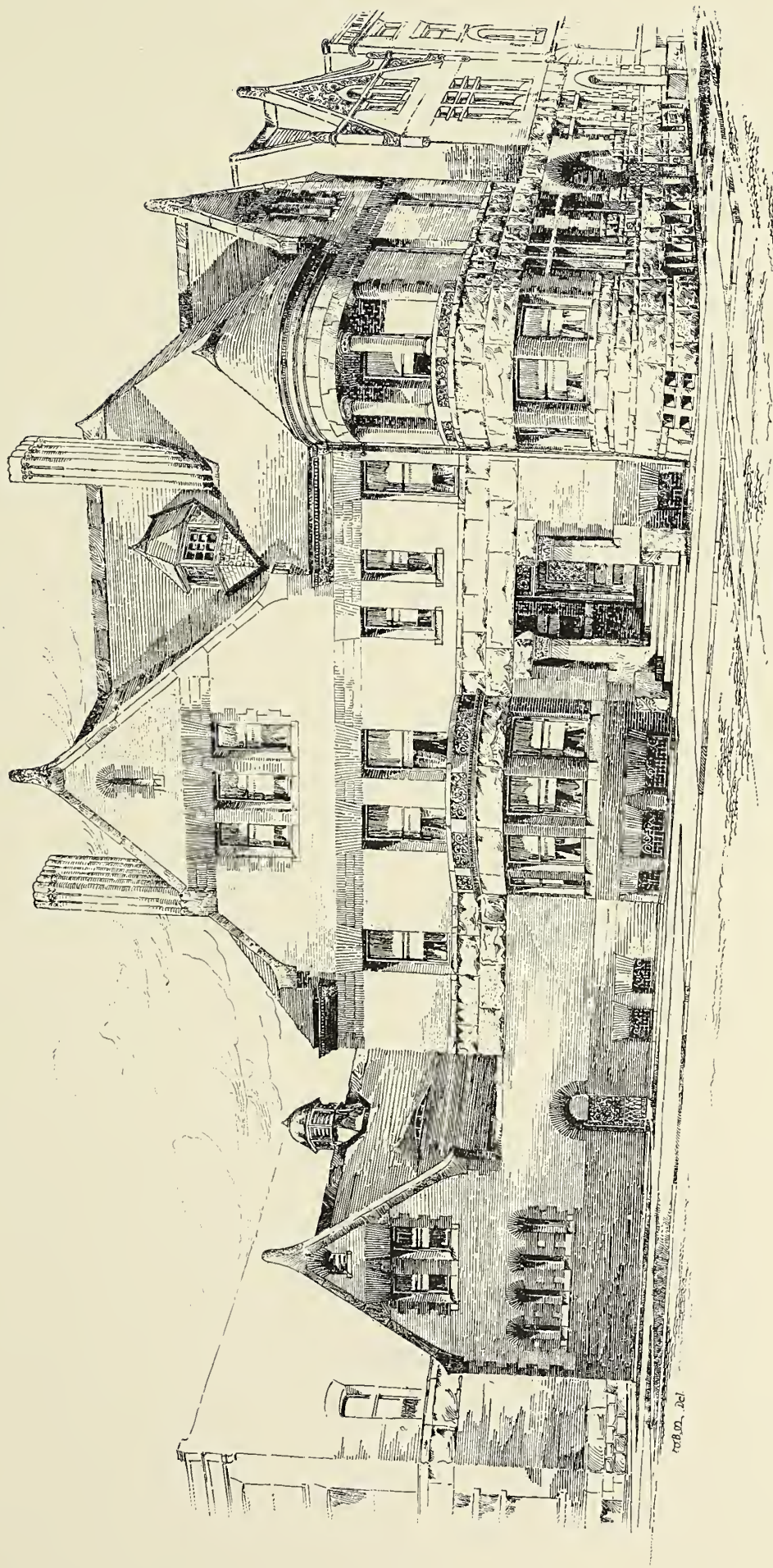




Residence for Mrs. K. Martin.

J. A. Thompson Architect - Glasgow.





W. L. B. Jenney wrote  
of W. B. M. 1884-85

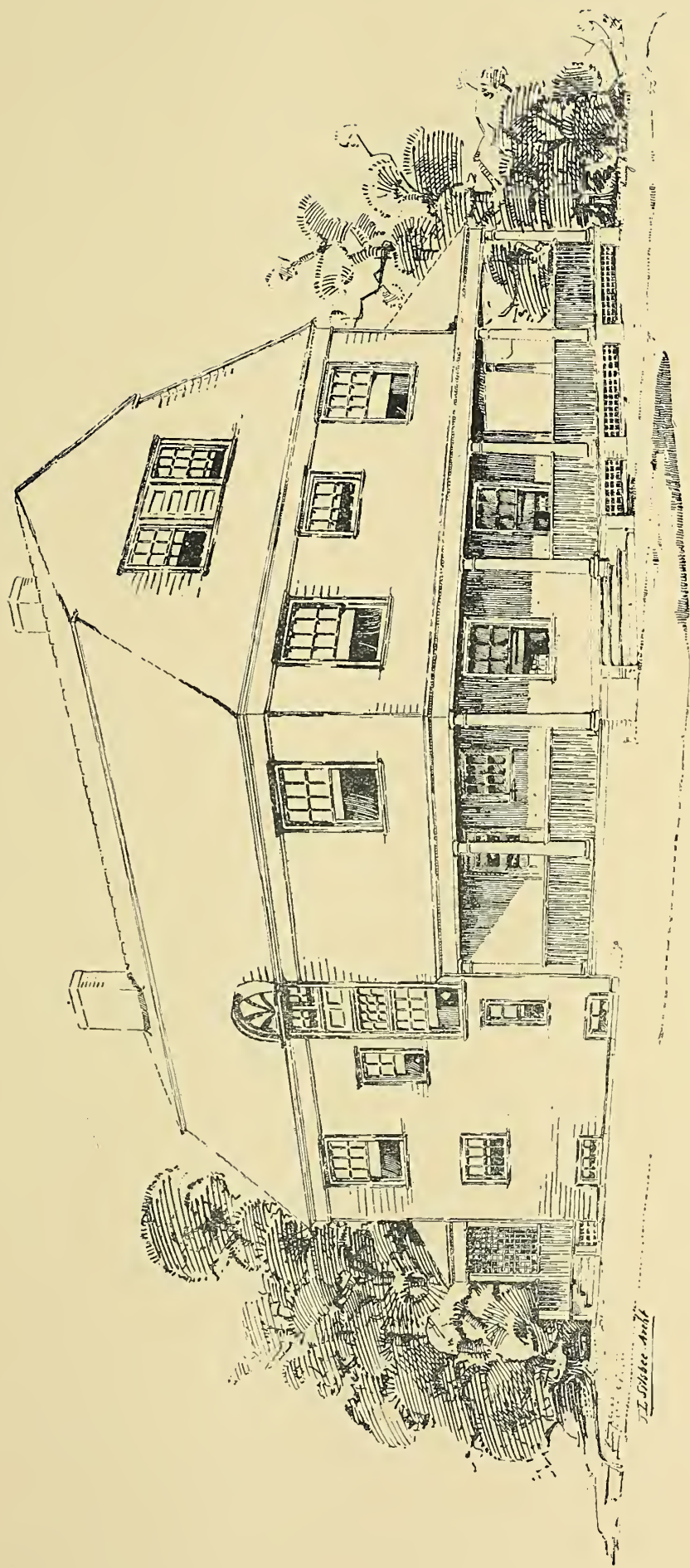
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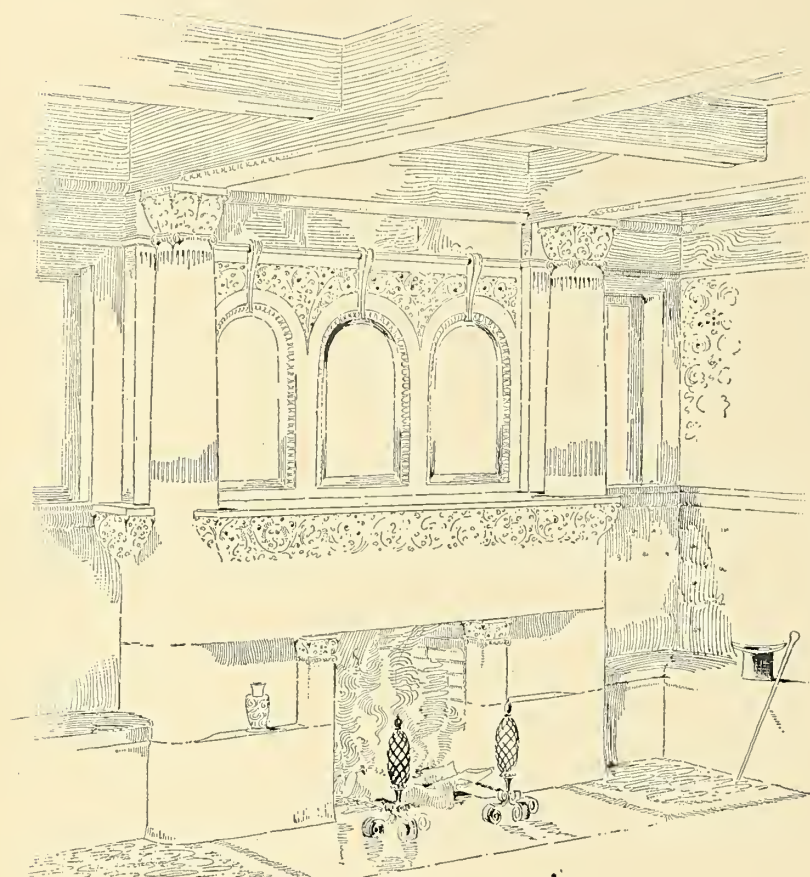




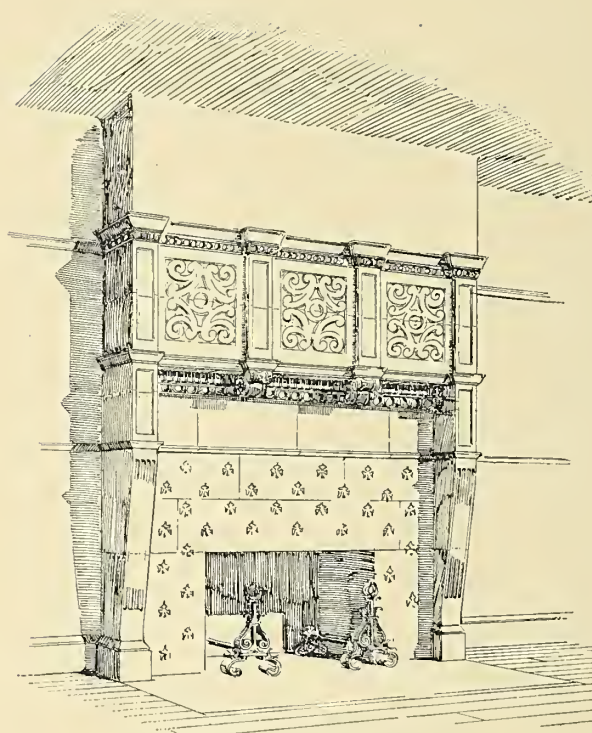




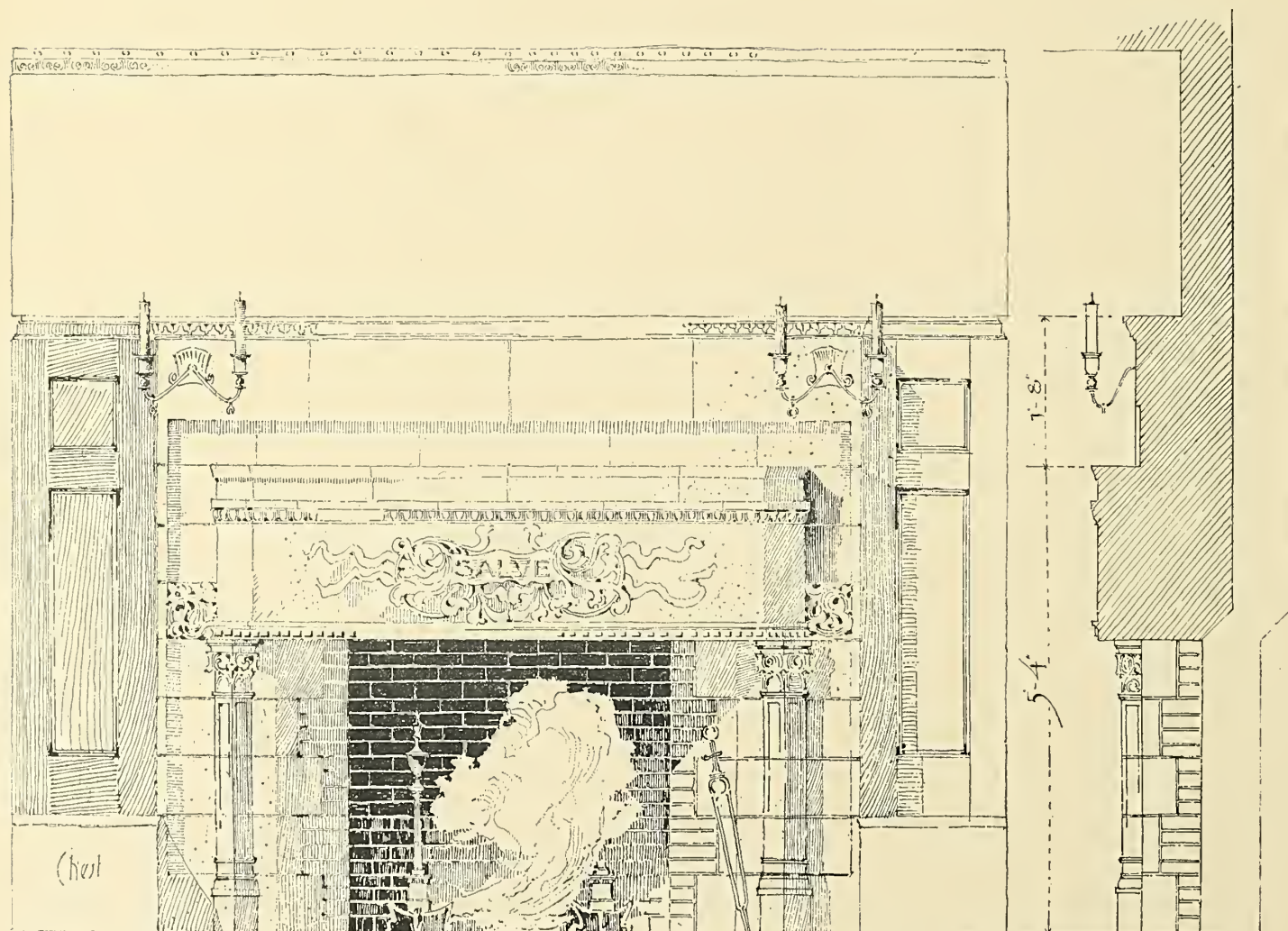




FIRST PLACE—T. O. FRAENKEL.

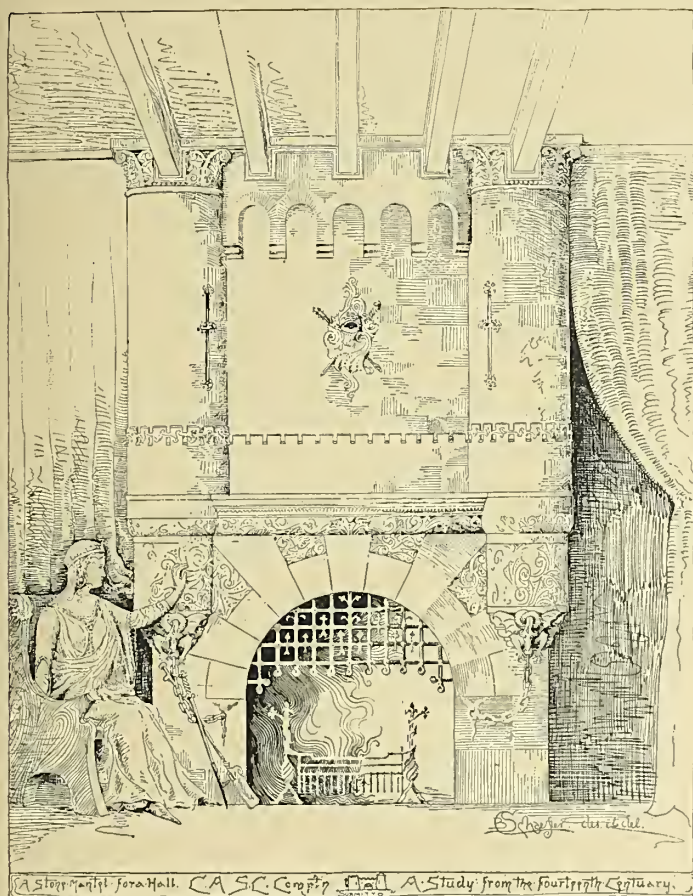


THIRD PLACE—W. E. KLENPELL.



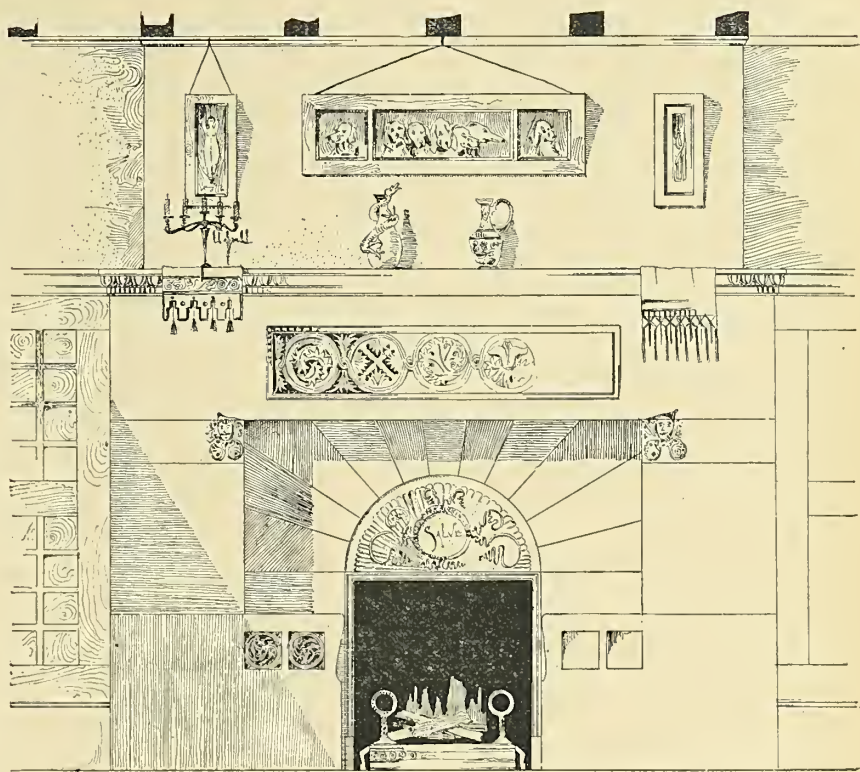
SECOND PLACE—OSCAR ENDERS.



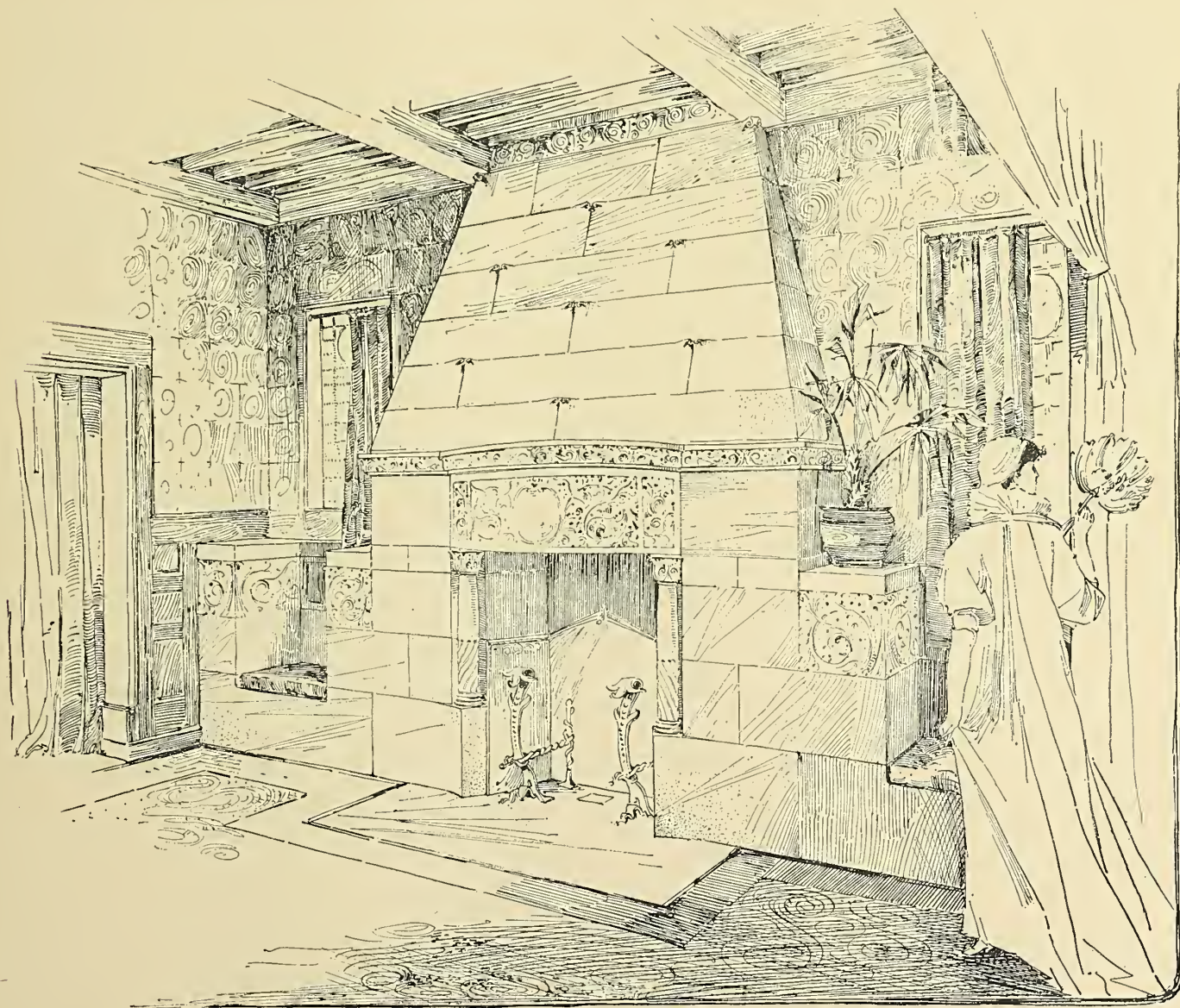


A Stone Mantel for a Hall. C. B. Schaefer. A Study from the Fourteenth Century.

MENTIONED—C. B. SCHAEFER.



MENTIONED—R. A. DENLL.



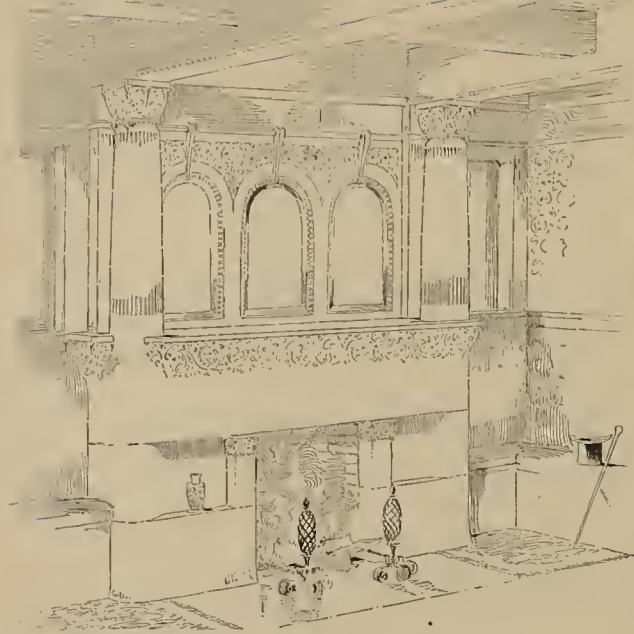
MENTIONED—A. HEUN.

ITION FOR A STONE MANTEL FOR A HALL.

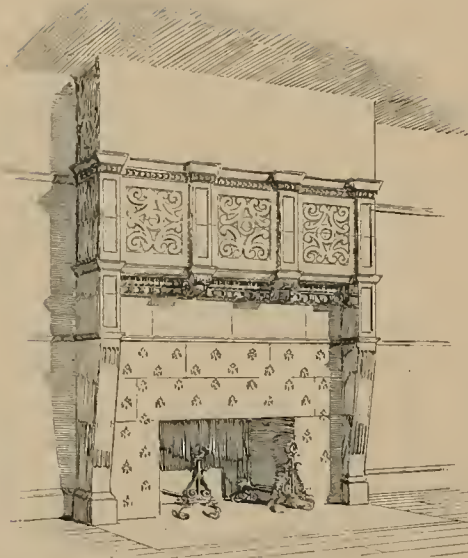




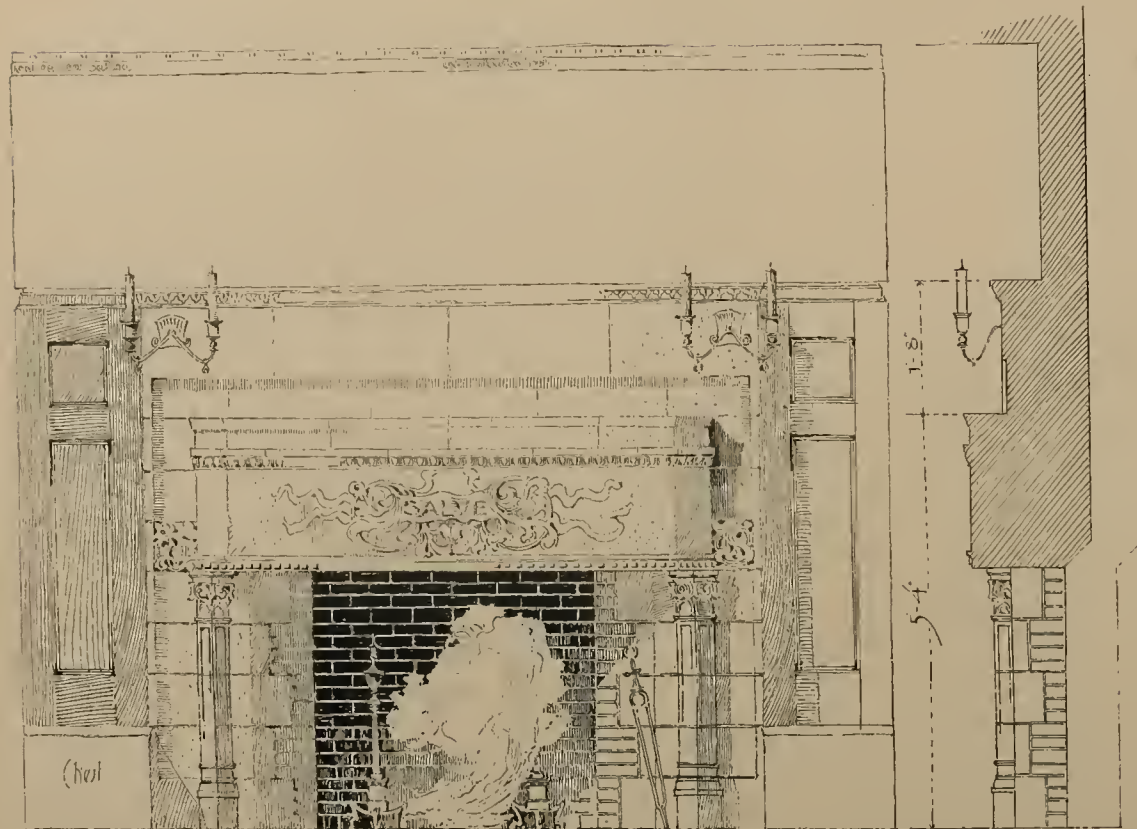




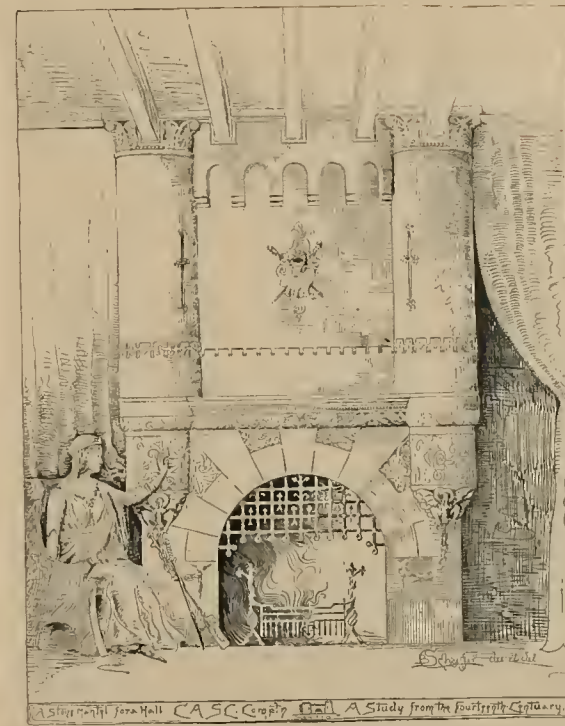
FIRST PLACE—T. O. FRAENKEL.



THIRD PLACE—W. E. KLENPELL.



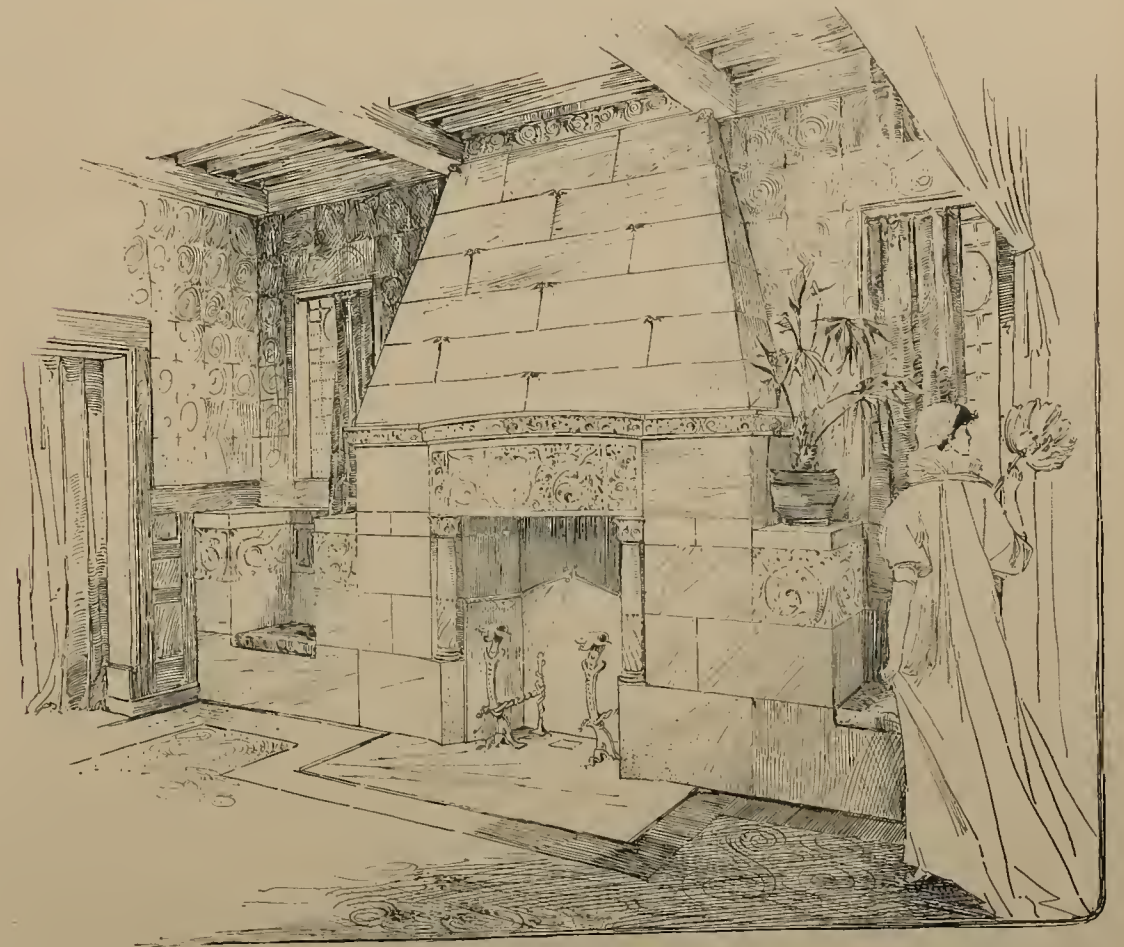
SECOND PLACE—OSCAR ENDERS.



MENTIONED—C. B. SCHAEFER.



MENTIONED—K. A. DENILL.

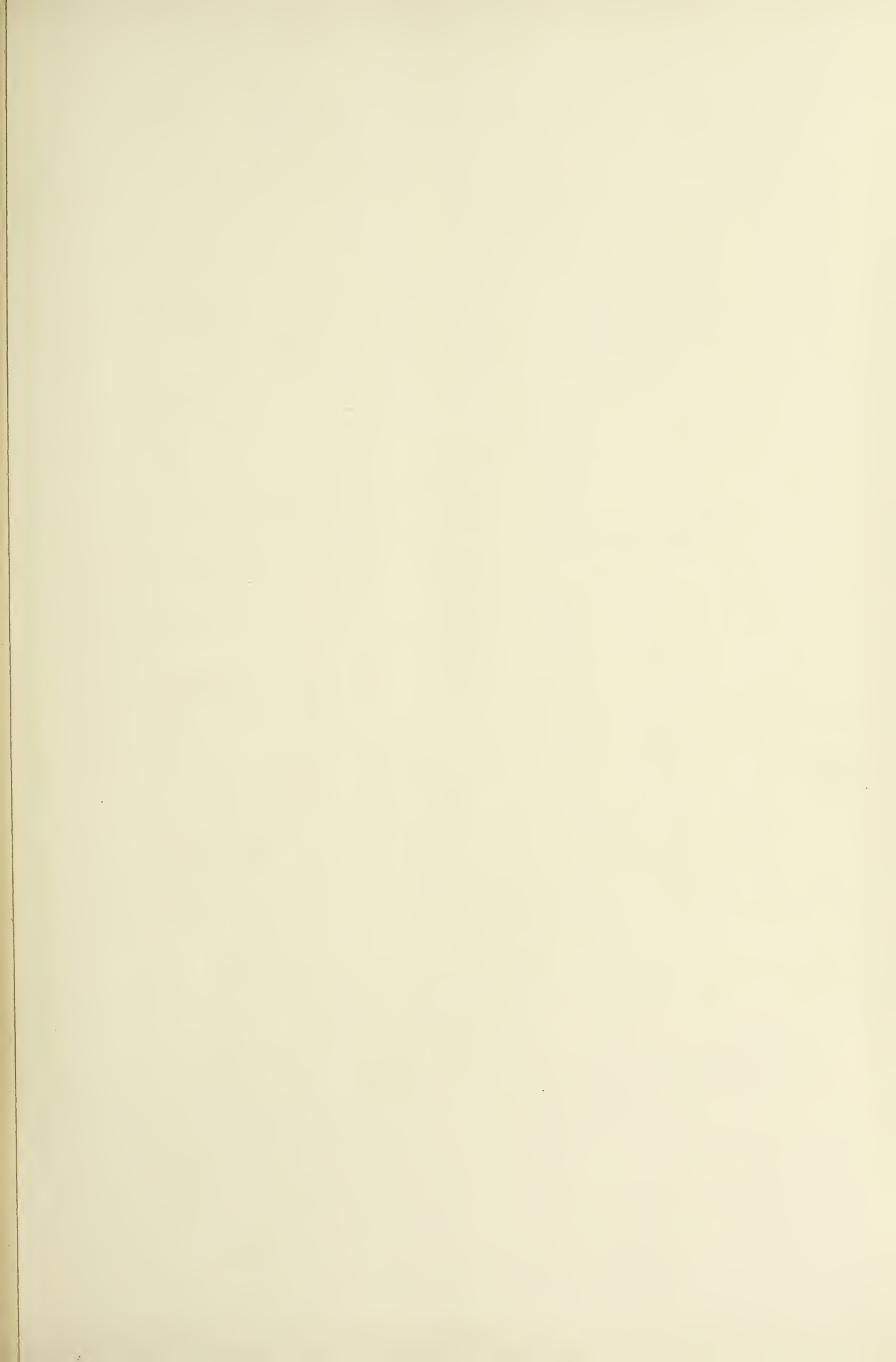


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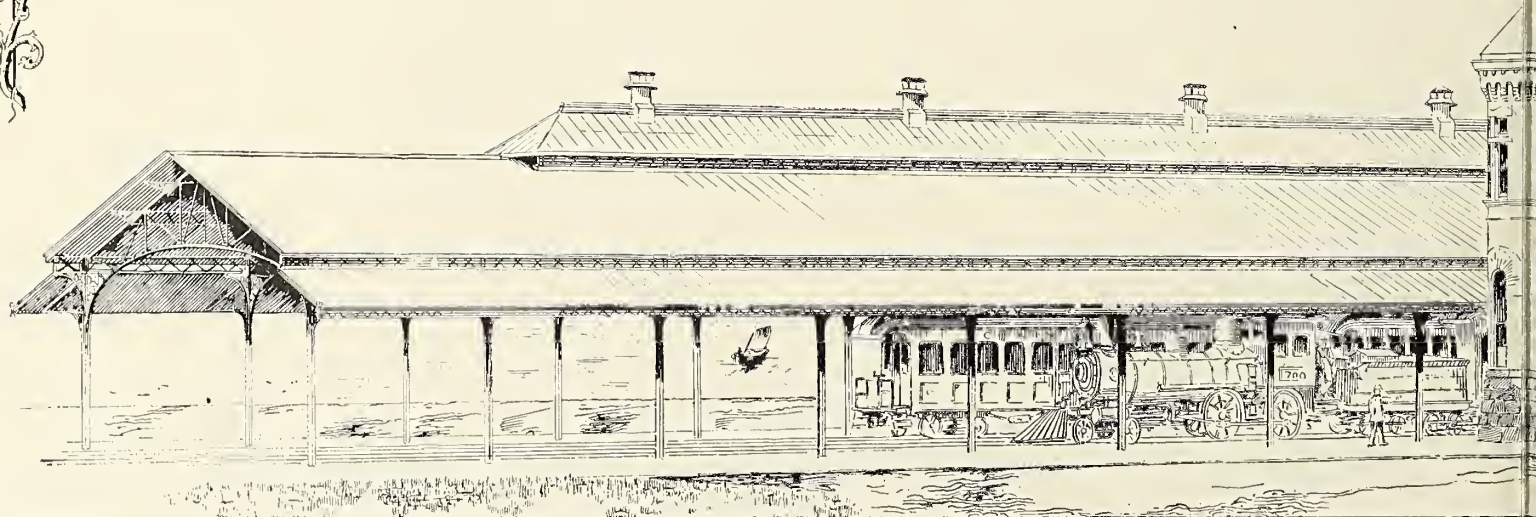
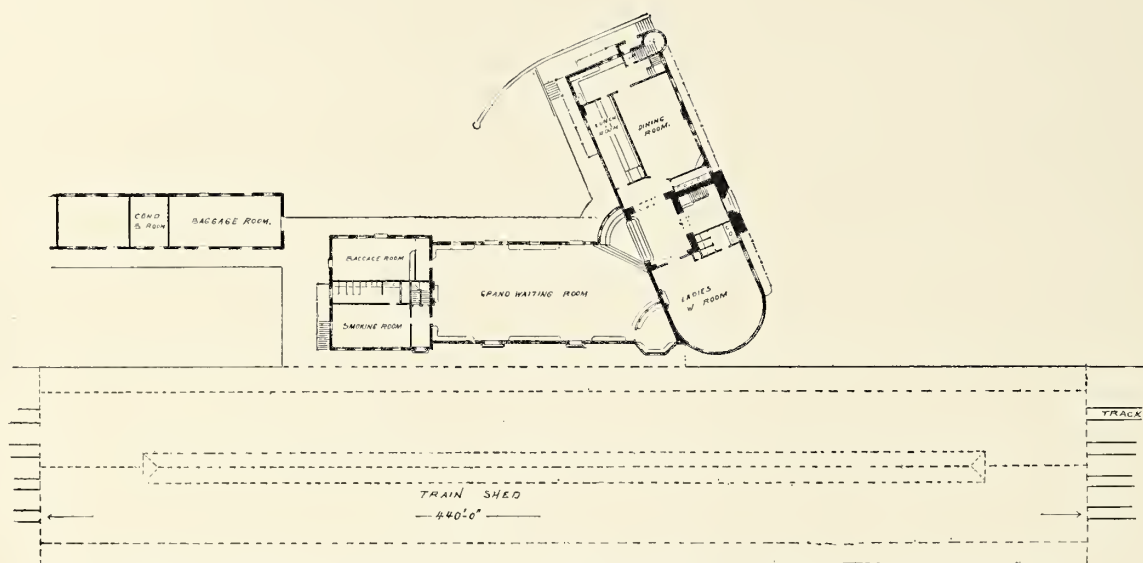








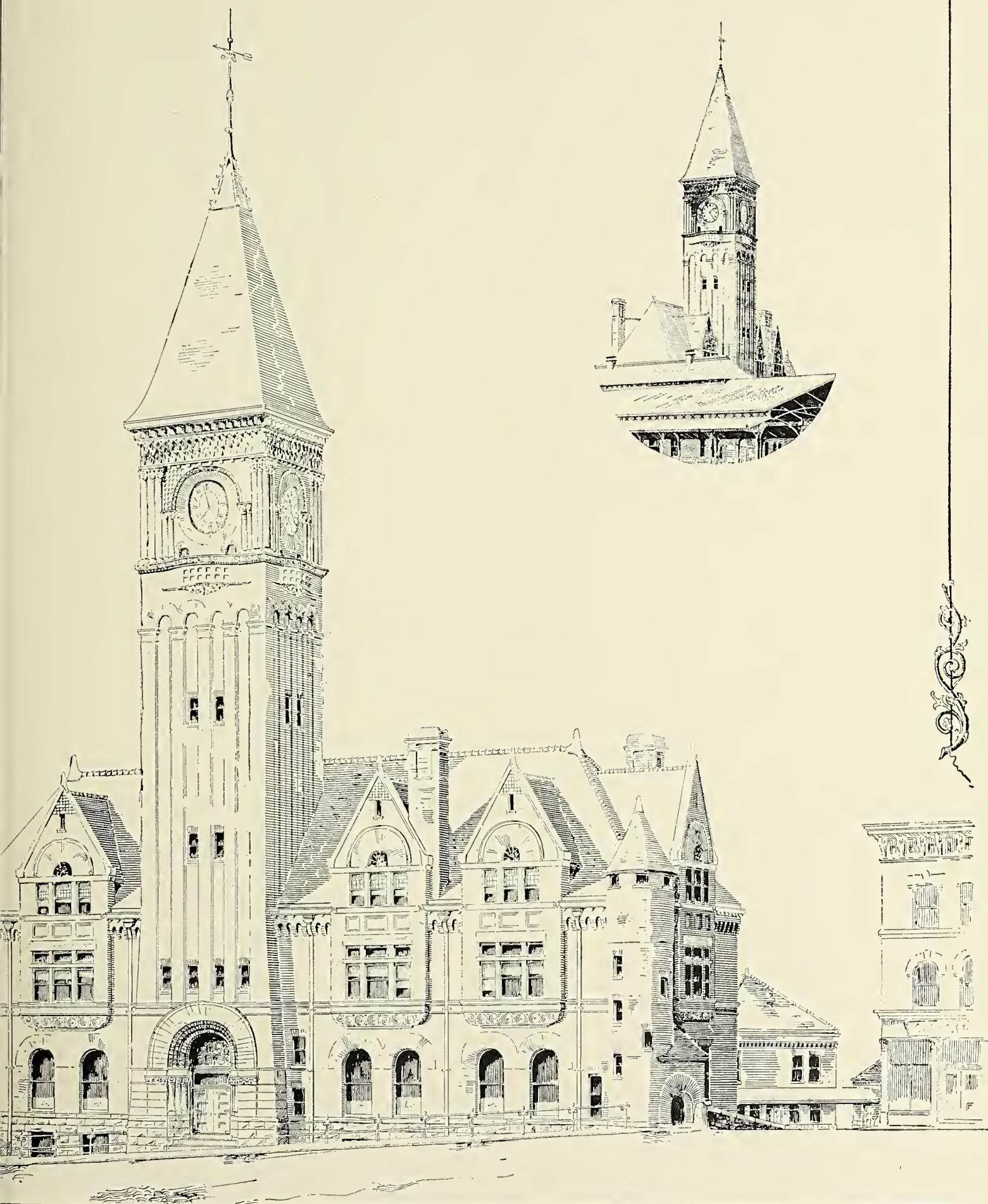




PASSENGER STATION OF THE CHICAGO & NORTH WESTERN RAILWAY

CHARLES S. FROST





H. H. BRAUN DEL.

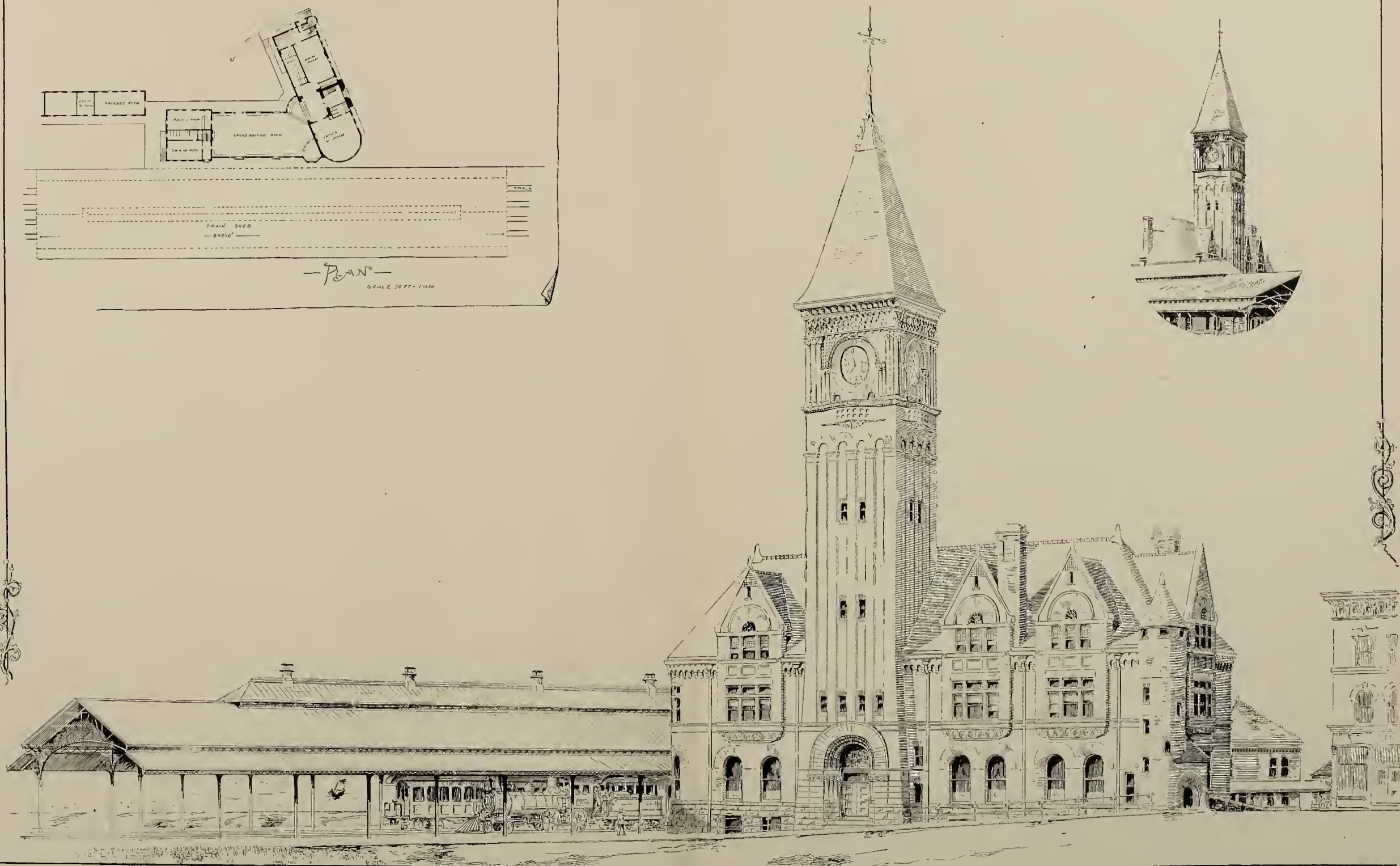
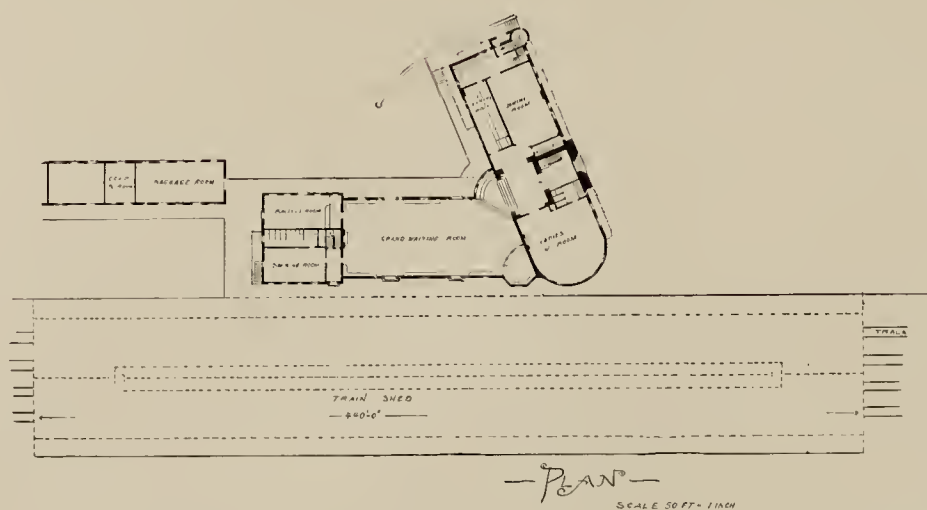
THWESTERN RAILROAD AT MILWAUKEE, WIS.

ARCHITECT, CHICAGO.









PASSENGER STATION OF THE CHICAGO & NORTHWESTERN RAILROAD AT MILWAUKEE, WIS.

CHARLES S. FROST, ARCHITECT, CHICAGO.

A.H. BRAUN DEL.







# THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIII.

APRIL, 1889.

No. 4

APRIL, 1889.

## THE INLAND ARCHITECT AND NEWS RECORD.

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### CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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#### Appointment of a new Supervising Architect.

On March 26 James Hamilton Windrim, architect, of Philadelphia, was called to Washington to accept the appointment of supervising architect of the treasury. With the political aspect of the case, which involved the resignation of the representative of one party and the appointment of that of another, we have nothing to say. When Mr. Freret was appointed we indorsed him as a political appointee and can do nothing less in regard to the appointment of his successor. Fortunately, the latter is an architect of wide reputation, and, probably, the most capable of all those who have sought to develop a creditable practice under a political system that makes such a result impossible. The following biographical sketch is taken from a Philadelphia journal, and is approximately correct:

Mr. James H. Windrim, who has been tendered the position of supervising architect of the treasury department, is a Philadelphian, and is widely known as the architect of the Masonic Temple. Mr. Windrim is forty-nine years of age, and is of Scotch parentage, although a native of Philadelphia, having been born in this city July 4, 1840. He was given a liberal education and graduated from Girard College in 1856, when but sixteen years of age. A year later he entered the office of John Notman, then one of the best architects of the city, and remained there three years, making rapid progress in the profession he had chosen. At that time, however, his steady application to his studies began to tell on him, and enfeebled health forced him to seek out-door work. He obtained employment with Thomas Bateman, a carpenter and builder of West Chester, and his experience there was of great use to him afterward in his profession. With renewed health he returned to Philadelphia and to the service of Mr. Notman, in the shop of Archibald Catanach, who was then building the church of the Holy Trinity, of which Mr. Notman was the architect. When but twenty-six years of age Mr. Windrim's plans for a new Masonic Temple were adopted, causing considerable dissatisfaction among the older members of the profession, on account of his youth. It was afterward erected at Broad and Filbert streets under his supervision, where it stands a lasting testimonial to his genius and ability. This success may be said to have fairly started him in the profession in which he has since won distinction, and of which he is one of the acknowledged leaders. Upon leaving Mr. Notman he was engaged as supervising architect in charge of the erection of the hospital of the Protestant Episcopal Church. Then he was stationed at Pittsburgh as architect for the Pennsylvania Railroad Company, but surrendered the position in order to commence the private practice of his profession in this city. He soon established a high reputation for the substantial value as well as the beauty of his constructions, and for faithful care of the interests of his clients, and had all the business he could attend to. He is noted for his originality and a rigid adherence to the principles of the school from which he draws his design. He avoids excessive ornamentation and aims at strength and harmony, with a proper consideration of the use to which the building is to be applied. For ten years he has been director of the Spring Garden Institute, and chairman of the Committee on Drawing Schools, and for several years architect to the Board of City Trusts.

Many of the prominent buildings of this city and vicinity bear evidence of his genius in designing. Besides the Masonic Temple, he furnished plans for the banking houses of the Fidelity Safe Deposit Company, the National Bank of the Northern Liberties, the Tradesman's National Bank, the new offices of the Pennsylvania Railroad Company, the Academy of National Sciences, the new buildings of the Girard College, the great stores of the Girard estate on Market street, between Eleventh and Twelfth, the Western Saving Fund Building, the College of Physicians, the Hotel Lafayette, the various improvements to the properties of the Girard estate, the Agricultural Building, and the United States Government Building on the Centennial grounds; "Ogontz," the country seat of Jay Cooke, at Cheltenham Hills; the residences of John Rice, John Baird, E. C. Knight, William Warden, Conrad Clothier, Thomas Dolan, and many other buildings and houses.

While we believe that Mr. Windrim will do all that one man can to creditably perform the duties of the office, we have no hope for his success under the present system. The reasons for this are too well known and too often enumerated to require mention. The architectural associations of the country have long sought to bring the only remedy before congress, but as yet with little success. The reports of the last two incumbents of the office, particularly that of Mifflin E. Bell, show that the time has come when the representatives of the people can no longer ignore the fact that the office of supervising architect of the United States must be something more than a clerkship in the treasury department, and that the erection of our public buildings must be governed by a broader policy, the designs being produced by our best architectural talent.



**The Toronto Board of Trade Building Competition.** A competition has just been decided in Toronto, for a board of trade building, many points regarding which are interesting. The competition plan was based upon that established in the Cincinnati and the Kansas City board of trade competitions and drawn closely upon the lines laid down in the latter. Two prominent American architects, George B. Post, of New York, and Richard A. Waite, of Buffalo, were invited to submit plans, each to be paid \$400. Upon the suggestion of the Toronto Architectural Guild, two Toronto firms, architects Darling & Curry and Langley & Burke, were invited at the same compensation, this, however, to be donated to the guild, if either were successful. The competition was placed in the hands of Professor W. R. Ware, of Columbia College, who, after examining twenty designs submitted, selected three and sent them to the committee of the board. This report was considered by the committee, and the sealed envelopes containing the names of the authors of the plans submitted, having then been opened, it was found that the plans marked "Two Circles" was the work of Messrs. James & James, of New York City and Kansas City; "Ten Per Cent," of Messrs. Gordon & Helliwell, of Toronto; "Utility," of Messrs. Darling & Curry, of Toronto. The plans submitted by James & James were most favorable to the committee, and the design of Darling & Curry so attractive, that an attempt was made to having the two firms act jointly as architects of the building. This was found impracticable, and James & James were engaged, with instructions to prepare a new design. This was done, and having been approved by Professor Ware, was adopted by the building committee. It will probably be a fireproof structure. A significant part of the committee's report to the board was "that the competitors, with an insignificant exception, absolutely abstained from attempts to bring outside pressure to bear on them, and this was attended with signal discomfiture." Though competitions are a "necessary evil," those who originated the Western Association "code" and organized the modified plan upon which the one under consideration was based, have benefited their profession and taught the public the difference between honest and dishonest competitions.

**Regarding the Vote For or Against Consolidation.** The board of directors of the Western Association and the executive committee of the American Institute are preparing to issue the letter ballots which will decide the consolidation question. They will issue copies of the draft of constitution and by-laws for the proposed consolidated society, together with a letter of instructions. Each executive board will mail these to their respective members about April 18. As we printed the proposed constitution and by-laws two months ago the plan of formation of the new society has probably been carefully studied by the members of both associations and they will be prepared to vote intelligently upon receipt of the official circular. Pending this it should be borne in mind that it is the general plan, and not the exact phraseology and detail of the different provisions to carry it out that is voted upon, and while it would probably be wise for the assembled convention to accept a constitution that has been so carefully considered, it is in no way arbitrary, and any point of difference can be there discussed if members are so disposed. In a letter of recommendation adopted by the joint committee that framed the constitution, Cincinnati was agreed upon as a proper place to hold the joint convention, and this we most heartily

indorse. It is an admirable convention city, its architects are, as a rule, members of both associations, and would give the visitors a warm reception; and, perhaps the most important consideration of all, it is central.

**Reasons why Consolidation should be Effected.**

In regard to this scheme of consolidation we would clearly define our position. When it was first suggested by a member of the American Institute, we were attracted by its scope and breadth, but doubtful of its feasibility. Perhaps we might confess to a slight feeling of opposition when we contemplated the Western Association, of which we were the authors, and for the upbuilding of which we have labored so long, being merged into another body; but the present plan meets with our full approbation. We can plainly see that the members of state associations that have, in their almost independent condition, grown strong and influential, looking with some degree of hesitancy upon the proposed reorganization. To them we would say that the state organizations shall remain intact, and no change will be made that will be anything but beneficial to every member. With a concentration of effort, a broadening of principle and action, and a unity of purpose, the consolidated society will be the most powerful architectural body in the world. It will contain honorable practicing architects and only these. It will give a direction to what, it is hoped, will finally develop into an American style of architecture, a style that will have utility for its first principle, but have all the accessories of simplicity, dignity and color to make it peculiarly refined as it will be distinctive. It will be powerful in the eradication of abuses that have grown out of the primitive methods of the past and the ignorance of the public in regard to architecture in general. It will be the beginning of an architectural epoch such as no other country has ever seen.

**A Demand for Architects in South American Cities.**

One strong point of excellence in the scheme of consolidation of all the architectural societies in the United States, of which we recently printed the constitution and by-laws as formulated by the joint committee and passed upon by the associations' executive officers, is in its extended scope. The plan contemplates the admission to active membership of any architect practicing upon this western continent. While we know but little regarding the modern architecture of Mexico and South America, the development of these countries is as positive if not so rapid as ours. The tastes and requirements of the people are being met by foreign architects, and it is becoming apparent that the United States will not long be alone in the development of an "American style." The city of Mexico will expend millions of dollars within the next few years upon public buildings alone; Buenos Aires, Montevideo and other cities of South America are rapidly developing, and while a modern Spanish style may largely obtain, the public taste is being rapidly educated in the direction of convenient public buildings and comfortable houses. Architects from Europe and the United States will soon see this demand and seek to supply it by taking up their residence in these southern cities, and, while we can hardly lay down a rule by which an honest and capable architect may be known, we would say to those who receive the stranger architect, distrust him if he does not prove himself an accredited member of some national architectural society, and also if he comes from the United States and refers to the number of court houses he has built for his main recommendation.



Romanesque Architecture.\*

PART I.

ORIGIN OF ROMANESQUE ARCHITECTURE—CIVIL BASILICAS—BASILICAS, OR LATIN CHURCHES—BYZANTINE CHURCHES.

CHAPTER I.

CIVIL BASILICAS—DEFINITION.

ACCORDING to Vitruvius, the basilica was a hall in which the sovereigns administered justice, or had it administered in their names.

He says, speaking of palaces destined for important personages, that there were always found in them libraries and basilicas of the same magnificence as public edifices, because in these palaces were held assemblies to act on the affairs of state, and to judge of and arbitrate on individual difficulties. The Gordians, in their magnificent villa built on the Praenestine Way, had three basilicas thirty-three meters in length. The Senator Lateranus, a contemporary of Nero, had one constructed which, transformed by Constantine, became the original basilica of St. John Lateran.

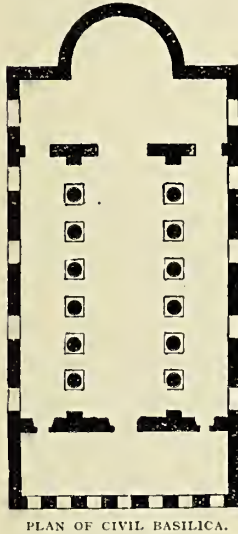
At Rome the basilica was the edifice containing the tribunal, where the judges sat. At the time of Publius Victor there were nineteen of them, for a basilica in which the courts could hold session, during the stormy season, had been added to each forum, or public building.

Later the basilicas became markets, or exchanges in which the people and the traders could meet to carry on the affairs of traffic. Vitruvius says that the edifice connected with the forum ought to be situated in the warmest exposure, that the frequenters might not be incommoded by the cold during the winter season.

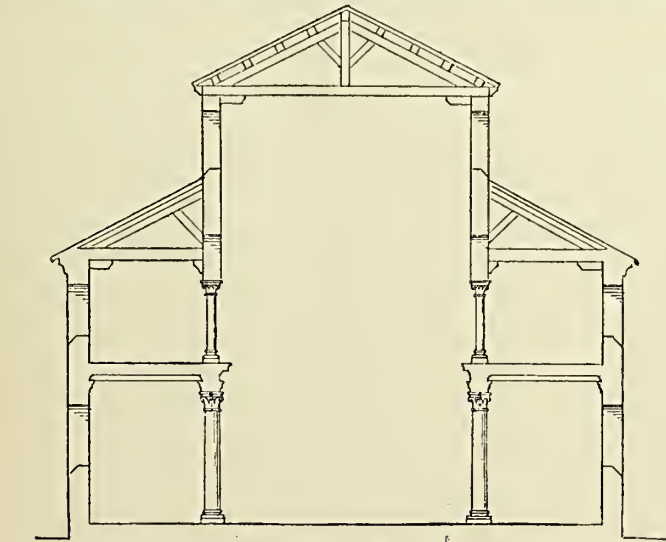
The basilica was ordinarily built on a rectangular plan, of which the width was equal to one-third of the entire length. The façades

were very simple, all architectural effect being reserved for interior decoration, which was often treated with great magnificence, as can be proven by the discoveries made on the site of the forum of Trajan, by the excavations made by the French government in 1812. In front of the principal façade stretched a portico across the whole width, from which doors opened into the longitudinal divisions of the building.

Vitruvius speaks of the *chalcidicae* built at the end of the basilica, and which were, according to his explanation, large porticos. According to other ancient authors, the word *chalcidica* signified a large and spacious hall, forming, in front of the hemicycle, a nave across the end of the aisle, or longitudinal naves, making the interior plan much like the letter T. According to Quatremere de Quincy, one could see in the idea of the *chalcidicae* the rudiments of the transept, which filled such an important place in the churches of the middle ages.



PLAN OF CIVIL BASILICA.



CIVIL BASILICA (TRANSVERSE SECTION).

\*"L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect Commenced Vol. XIII, No. 3.

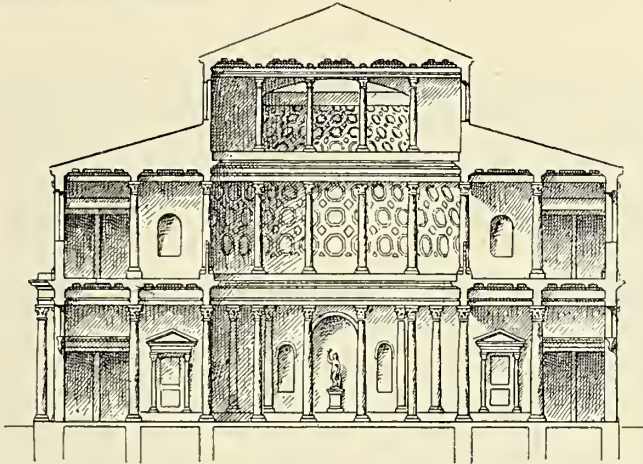
The interior was generally divided into three parts by two rows of columns or arcades, the center one being longer and higher than the two others.

These three parallel avenues opened into a transverse inclosure, protected by a low wall or balustrade. This place was reserved for the lawyers, the advocates and clerks. Facing the center avenue and beyond the transept a semi-circular space extended across the wall at the back. It was covered by a vault a quarter of a sphere in shape. The arcade which formed the entrance to it was called the *Absis*, from whence comes the word "Apsis," which we shall meet later.

It was in the hemicycle or apse that the seats of the judges and assistants were placed. At the right and left there were often two secondary apses or small recesses, destined to contain the archives and accessories. The transverse section of the civil basilica shows us the economy of its construction.

The central hall, formed by the side wall, was supported by columns or arcades, separating it from the side aisles. Above these aisles were galleries containing benches, one side for the men, the other for the matrons and maidens, admitted into the basilica on condition that they were separated from the men.

The principal nave and the upper side galleries were covered with an open timber roof, often of cedar, richly ornamented with gold, according to ancient authors. This woodwork formed at the same time the ceiling and the roof, and was covered on the outside with plates of lead or bronze.



TRANSVERSE SECTION OF ULPIAN BASILICA AT ROME.

CHAPTER II.

CIVIL BASILICAS AT ROME AND IN THE EAST.

Among civil basilicas often spoken of by ancient writers we will mention the Porcian Basilica.

This basilica was constructed at Rome by the consuls of Porcius and Claudius in the year of Rome 566. It adjoins the Curie and suffered from the fire which destroyed this edifice, when they burned the body of Claudius on the forum. It must have been one of the oldest built by Romans, because, according to Titus Livy, this kind of building only appeared after the first Macedonian war, that is, about two hundred years before Christ.

The architect, Apollodorus of Damascus, at the end of the first or the commencement of the second century of the Christian era, erected in the midst of the Forum of Trajan the Ulpian Basilica. It is built with four rows of columns and has, consequently, five naves. It surpasses all similar edifices by the grandeur of its arrangements and the magnificence of its interior decorations.

About the same time, or a little later (160 or 169 A. D.), under the Emperors Marcus Aurelius and Lucius Verus, the Legate of Syria, celebrated for his revolt, built (in Central Syria) the Pretorium of Mousmieh, which recalled by its form and use the Roman basilica, and whose origin is established by the curious inscription cut on the stones of the building.

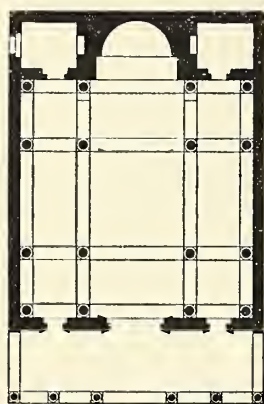
This pretorium, built under the direction of Egnatius Fuscus, a centurion of the Third Gallic Legion, is composed of three naves,



PLAN OF ULPIAN BASILICA.



formed by eight arches coupled in pairs, resting on four groups of four columns each, the central square being covered by a cupola constructed of blocks of stone and masonry work. The galleries that surmounted it were formed of blocks of stone carried upon the extrados of double arches, thus forming a barreled arch.



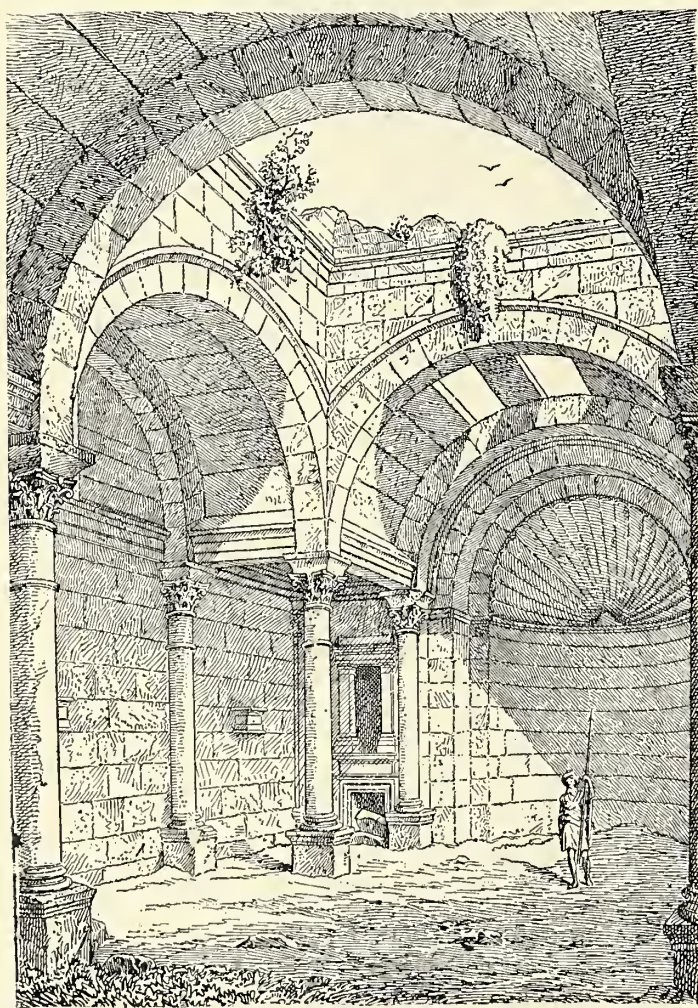
PLAN OF PRETORIUM OF  
MOUSMIEH.

The brackets on the side walls bore inscriptions which showed that they were meant to receive the busts of the centurions of the Third Gallic and Sixth Flavian Legions, which had been garrisoned in the town of Phaena, under the Emperors Marcus Aurelius and Commodus. This circumstance fixed the date of the construction of the walls, and of the hemicycle at the back, with its large conch covering the arch and the side niches.

### CHAPTER III.

#### THE BATHS OF CARACALLA AT ROME.

However different may have been their use, the basilicas and the antique baths, especially the Baths of Caracalla, built at the commencement of the third century, are closely allied to each other, not only in the details of their construction, but in their architectural expedient.

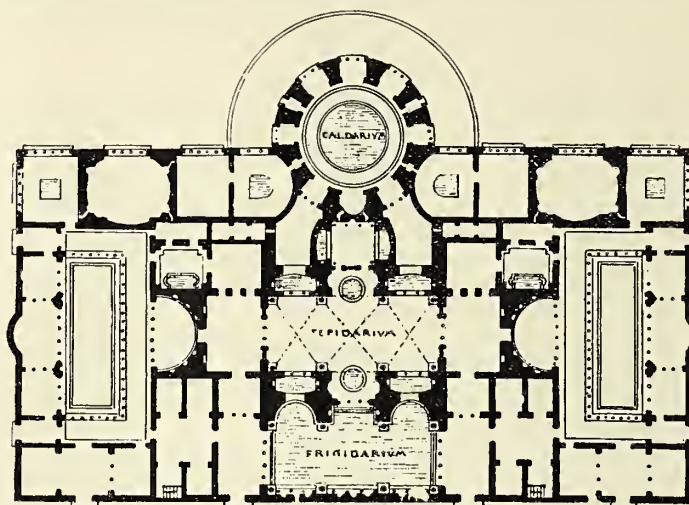


PRETORIUM OF MOUSMIEH (CENTRAL SYRIA).

The Baths of Caracalla were the last expression of Roman art, arrived at its highest development, and if their gigantic ruins are still the object of justifiable astonishment, one can easily imagine the admiration which these immense monuments must have excited when they were complete, imposing by their colossal proportions, as well as charming by the richness of their decoration.

They also impressed the architects of that time and their successors. This influence was felt from the first years of the fourth century. We see first the Christian builders drawing the inspiration directly from this admirable work, and giving to one of their first basilicas almost the identical arrangement of one of the most beautiful halls of the Baths of Caracalla. Afterward we see, two centuries

later, the architects of St. Sophia drawing inspiration from the baths and still following the Roman traditions, perfected, or modified, by the contact of Eastern civilization.

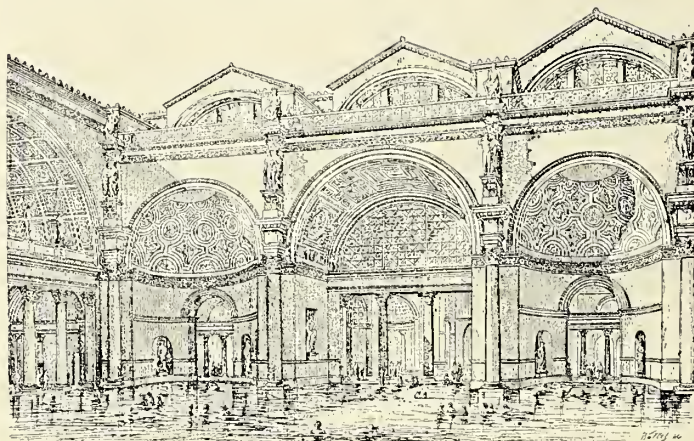


BATHS OF CARACALLA AT ROME.

With the exception of the round temples, the greater part of the temples and basilicas at Rome, Greek in plan and structure, were covered with wood.

The naves of the basilicas were not vaulted, but were covered by a paneled ceiling. It was only after the fire at Rome, under Nero, that the Romans abandoned almost entirely the wooden roofs, and substituted for them vaultings of masonry.

The Romans were enabled, because of their social system, to construct these immense edifices in the most simple and economical manner. They used almost exclusively brick and concrete. The facings were composed of triangular bricks, placed flat, their largest sides toward the exterior. In the midst of walls and piers a concrete, composed of large pebbles and excellent cement, filled the vacant spaces between the bricks. Finally, to regulate the courses and keep the



THE FRIGIDARIUM IN THE BATHS OF CARACALLA AT ROME.  
(According to restoration of Viollet-Leduc.)

level, bands of large bricks were placed at equal distances in height. Brick, relieving arches bedded in the construction, carried the weight upon the principal points of support. As to the vaults, they were faced with two courses of large brick, and filled above with a concrete composed of mortar and pumice stone.

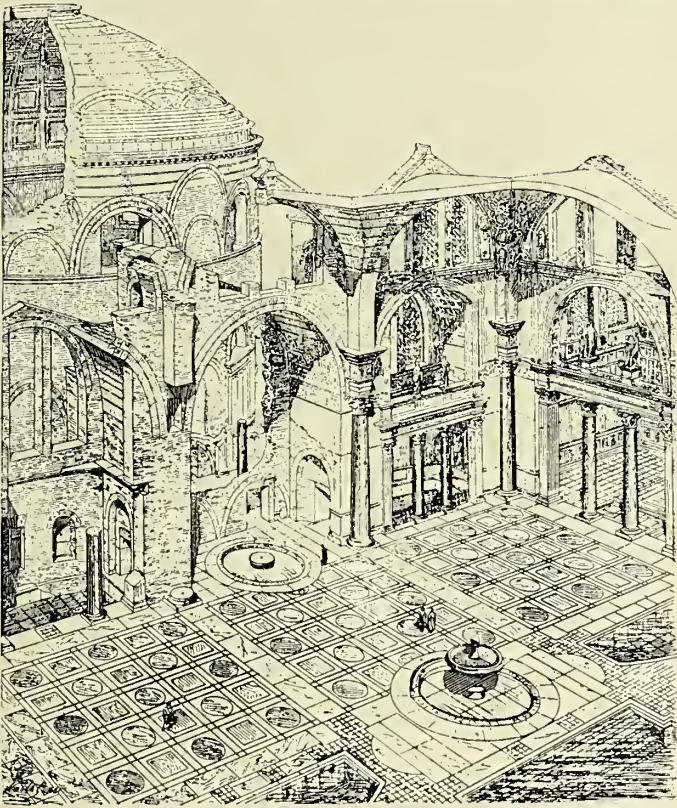
After this construction, so simple and so economical, and of such a rapid execution, the architects built marble porticos of columns and entablatures. The walls, piers and vaults in the interior were covered everywhere, with marble, stucco or mosaic; and this rough mass was embellished with a splendid mantle of the most sumptuous ornament.

The great circular hall, the Caldarium of the Baths of Caracalla, had more than one point of resemblance to the Rotunda of Agrippa in its form as well as in its construction, but if the details are less pure it is none the less a subject for the most interesting study, as an example of the construction of the round temple.

The Baths of Caracalla are one of the finest examples of Roman genius and of the science of architecture of the third century, and they show better than anything else the power of this great nation of builders. They inspired the architects of Rome and of Syria from the beginning of the fourth century; later, builders of St. Sophia, and still nearer to our own day, those of St. Marks, at Venice. Their



influence is plain, for one finds in all the great buildings erected at Rome, in the East and in Italy, from the fourth to the eleventh centuries, not only the details of the moldings and the decorations, but also the monumental traditions adopted and followed by the Romans.



THE TEPIDARIUM IN THE BATHS OF CARACALLA AT ROME.  
(According to restoration of Viollet-Leduc.)

Especially is it noticeable in the architectural motive of the great arches, subdivided by columns or arcades. It is even the same in the method of construction, which consisted of walls and points of support of coarse materials, afterward covered with purely decorative materials.

(To be continued.)

### Boston Sketches — Suburban Work.

BY C. H. BLACKALL.

(Concluded.)

IT would be expected that with all the associations connected with Boston, the typical yellow and white house, in the style vaguely designated as Colonial, would still be much in favor. It is a style admitting of great simplicity in general arrangement, while it allows of extreme richness in details, and being almost universally painted in the lightest of tones, every molding and carving can be shown forth in its fullest value, to the delight of the designer, if to no one else. The old Longfellow house is a most interesting example in point. It was built long before 1800, and after passing through all the changes in fashion since the Revolution, continues to be one of the most admired houses about Boston, for its architectural merit, no less than its historical and literary associations. Close beside it is a modern Colonial house built by Longfellow & Harlow for Mr. Thorp, a worthy imitation of the older mansion, with a wide gambrel roof, covered with cedar shingles, which have weathered to a beautiful pearl gray; yellow, clapboarded walls, and white finish at the corners and about the openings. Cambridge, indeed, abounds in Colonial houses; and as one cannot make a very bad mistake in so simple and natural a style, the yellow and white houses are, as a rule, very successful. In the vicinity of the colleges several have been erected within a few days, and it seems to be appreciated that such houses are peculiarly fitting for a town with so many colonial reminders as Cambridge, though they are found in all the suburbs. Mr. W. R. Emerson has but recently completed two Colonial houses on Fisher Hill, Brookline, of the simple, square, hipped-roofed type, of which so little can be said in description, for it is the simplest house which can be built; no sudden breaks or odd corners, no steep gables, no picturesque roofs, and yet which is so charming, with its pure yellow walls, set off by narrow fringes of fine moldings, with a little delicate carving about the entrance. It is a rather curious anomaly, that yellow and white, two of the most staring colors that can be selected,

should find equal favor in the bright sunlight of southern Spain and in the stern climate of rugged New England.

Mr. Emerson has been using the Colonial style very successfully in connection with a brick house near Guild Place, Brookline. In plan, the ell is built at an oblique angle with the main part of the house, giving an excuse for a low, round tower at the junction, and a wide sweep of the main roof out over the entrance porch, so that the house has an air of nestling about the tower, while it throws out its arms to welcome the stranger. These houses are quite different in style from those executed by the same architect a few years since, when a picturesque outline was more considered than purity of detail. Seven years ago he built a very interesting summer house on the Jerusalem road at Nantasket, for Asa Potter, choosing a site which was nothing but a mass of great boulders, each bigger than a house, and carrying up simple masses of shingled walls over the very edge of the rocks, so that from every point of view there were presented the picturesque lines of a sharp perspective carried down in the warm tones of the stained shingles. Mr. Emerson always selects good colors for his houses. There is one particularly good combination, which I believe started with him. The wall shingles are stained a rich, transparent Prout's brown; the roof is a darker brown, almost black; the window finish is painted the same color as the stain on the shingles, and the sashes are painted a creamy white, brightening the dark openings of the windows, and giving just enough sparkle to the general effect to offset the otherwise somber hues of the walls and roofs.

Perhaps the most successful house about Boston for its picturesque qualities, is one erected for G. N. Black, at Oyster Cove, near Manchester, on the North Shore, by Messrs. Peabody & Stearns. As approached from the main road, the house is almost hidden by the huge rocks on all sides. The driveway passes under a wing which is built out at oblique angle to the body of the house. A broad flight of steps leads from the driveway, between heavy shingled buttresses to the front entrance. Inside the door, a short vestibule leads to the main hall, raised six or eight steps above the entrance and carried across the width of the house, with a ponderous fireplace and a heavy, beamed ceiling. Across the end of the hall are wide windows looking directly out to sea. Adjoining, on the right, is the dining room, and to the left, a parlor, opening from which is a wide covered piazza, built out so close to the edge of the water that a stone tossed over the parapet splashes in the tide thirty feet or more below. On the side of the hall away from the sea the staircase leads to a balcony over the vestibule and midway between the first and second stories, connecting with a most delightfully cozy reading room directly over the driveway, with odd little bay-windows, looking in one direction up the road, and in the other, off to sea, while a balcony and flight of steps leads to the high rocks bordering the road, and beyond it to a little patch of meadow snuggled in between the road and the sea. The ground falls so abruptly that while on one side the first floor is almost level with the ground, on the other side the cellar is eight feet or more above the rocky foundations. Add a wide, simple roof, a picturesque turret, where the wing and the hall join, warm brown tones on the shingles, helped out by the gray, moss-covered rocks and a clump of heavy green foliage down by the water's edge, with the broad ocean for horizon, and some idea can be formed of the general effect of this delightful summer dwelling. If there is a more successful attempt of its kind anywhere about Boston, the writer has failed to discover it. The house seems to belong just where it is; and the irregularities, the ups and downs, the angles in the wing and the dip of the driveway, all are warranted by the natural conditions and are a logical adaptation of the necessities of the plan to an irregular site, the picturesque results being none the less satisfactory, in that it appears to be spontaneous and unstudied.

Peabody & Stearns have built two houses on Fisher Hill, Brookline, which should not be forgotten. The first is occupied by Joseph H. White, and is built on a long, lawn-like slope rising from the old reservoir pond on Boylston street; a handsome, dignified house, placed so as to show a long front to the street, rising over a broad stone terrace, with a brick first story, heavy, half-timbered work above and in the gables, and the lines of the ell carried across the hill toward the extensive stables on the right; one of the best houses in Brookline, though not equal to the second house, further down the hill, which is being built for Jonathan White. This is a very satisfactory design, entirely in light stone, carried out in the English Tudor style, and pleasing not only for its well-studied details and good general effect, but also for the manner in which Mr. Olmstead's landscape work and the architect's design are so united that the house seems to be just as thoroughly in place, and a part of the surroundings, as



though it had grown there. There is hardly any style more pleasing and suitable for a stone house in our climate and with our building material, than the style which has served so well for so many English manor houses, the transition between the Gothic and the Renaissance, which we term Tudor, but which is matched in every country in Europe, though England seems to have given it a comfortable, home-like term, which peculiarly suits our wants of today; and, after all, no matter how kindly wood and shingles may lend themselves to purely picturesque effects, there is nothing quite so thoroughly satisfactory as a substantial stone house.

The enumeration of interesting country houses about Boston might be extended almost indefinitely. In the neighborhood of Swampscott and Salem are a number of shingled houses by Arthur Little which are especially noticeable for their quaint, picturesque qualities, and for the pure, Colonial feeling displayed in the details and in the interior work. In Milton are many large estates, most of which offer something of interest to the architect, either in the shape of relics of the revolutionary period, or a wide-spreading, dark-stained, shingled palace of more modern construction; while scattered through Jamaica Plain and the outlying portions of Brookline, are such examples as the Coolidge house, by C. Howard Walker; the Weld house, by Mr. Wheelwright, and a score of others which rank with the best. Nor is the excellence in the suburban architecture confined entirely to the domestic work. Richardson's libraries at Quincy, Woburn and Malden are inimitable in their way. His law school at Cambridge has been so widely published as to require no description, though its full effect can be rightly appreciated only on the spot, since, as in all of his work, color, the surroundings, and the material are integral factors in the design. The North Easton town hall, and the charming railway stations scattered along the lines of the Boston & Albany railroad, are further tokens of his genius. The latter, especially, are such radical departures from the conventional American railway station, and withal so successful, both for actual service and esthetic creations, that they will repay the trouble necessary to visit them all. Then there is the Howard Gymnasium by Peabody & Stearns; the Memorial Hall, which deserves more credit than it usually receives for its splendidly proportioned masses, and its noble banqueting hall, unequaled by anything this side of Westminster; also, the city hospital, by Chamberlain & Whidden, and the public school, library and city hall presented to Cambridge by the Rindge estate. Some day, when student ships to send young architects to Europe shall have become a drug in the market, it is to be hoped that some public-spirited artist or amateur will emulate the example of Pugin, by establishing a fund which will teach architects that there are a few things worthy of study on this side of the ocean, and will send students to travel at home. Then there could be no more delightful experience than a summer sketching trip through the suburbs of Boston, with camera, note book and bicycle, for the distances are long and the roads perfect; nor would it be easy to find elsewhere within the same compass an equal amount or a greater variety of rural architecture in all its phases.

### Art Criticism.

BY A. B. P.

EVERYONE who is strenuous of perfection, who holds clearly and sharply in his thought the highest ideal which he is capable of forming, and who brings to the test of this ideal perfection each attainment, each achievement, each creation, whether his own or another's, is continually compelled, in his judgment of works, to say, "I find it unsatisfactory; it falls short of perfection." However impossible may be the entire, the ultimate satisfaction of one's educated sense of beauty, however remote may be the time when we shall look upon any artistic creation and say, without reservation, "it satisfies"; still the near and yet more near approximation to the complete satisfaction of the educated sense is only possible when each creator passes sentence upon all work in the light of this ultimate test and this ideal perfection. But careful, thoughtful, discerning criticism of a work of art, with a view to ascertaining its relative value, is a very different thing from overwhelming and utter condemnation of a work merely because it fails perfectly to satisfy an awakened and intelligent sense of beauty; and if we were to hear a would-be critic say of the paintings or statuary in a gallery, or of the edifices in a city, that there was not one that satisfied the finest and highest demands of his sense of ideal perfection, and that therefore they were a credit neither to the citizens nor to the artists, we should at once say that the critic, however clearly defined, however true might be his ideal, was occupying an altogether untenable, an alto-

gether absurd, position, and for the manifest reason that no absolutely perfect work of art ever did or ever will exist, and that that which today might have the fortune to find favor in his sight, and to be classed by him as perfect, would of necessity be so classed by him merely by virtue of the comparative lowness or imperfection of his ideal, and not because of the absolute perfection of the work itself. A critic who contemptuously condemns everything of which he cannot say, "It satisfies my ideal," at once and inevitably condemns himself the minute that he says that any particular work perfectly satisfies him. We have only to look at the work to discover that it has defects, and thus to discover the critic's blind side; and, in like manner, knowing that he has a blind side, we may confidently expect to find much that is good where he found only a whole to condemn. Depend upon it, the blind-sided man is blind on more sides than one.

If we set out with the determination to praise only the perfect, we shall lose our power of speech ere we find that on which to bestow our unqualified praise; and we shall miss the privilege of enjoying a countless number of praiseworthy creations, including a Parthenon, a St. Mark's, a St. Peter's, a Giotto's Campanile, a Cà Doro, and so on down to the works of men now living. People who make great sweeping condemnations in all, including categories, on the ground of failure to attain to absolute perfection, and who walk the earth with their esthetic noses turned high in air at the poverty of ideas and the decadence of art which everywhere offend their eyes, are not one whit more correct in their attitude than the gaping mob who find ugliness beautiful, and admire all things without discrimination. Not only are they not more correct, but they are not more praiseworthy, and are decidedly less agreeable acquaintances. We pardon the open-mouthed dunce. He at least has the faculty of admiration, and is capable of reverence, while the supercilious, unsatisfied, gingerly-treading scorner of all created things wearies us with his egotistic "counsels of perfection," and his stale depreciation of whole continents. If the Almighty Creator of the universe had had to consult a jury of such perfectionists, when undertaking the work of creation, he would never have advanced beyond chaos, and would have been forever denied the pleasure of looking upon his work and saying, "It is good." Nothing in art is perfect; nothing fully satisfies; but much that is not perfect, like the creation of the Great World-making Artist, is good.

There are in all art good things that are not wholly good, and things not altogether admirable that yet are admirable. It is no virtue to be able to discern the bad, if discerning the bad of itself blinds one to what good may also co-exist therewith. To be rigorously, searchingly just in one's judgment of any human work demands that we discern both the good and the bad, and give just and even-handed recognition for each. We are at liberty to refuse to criticise; but if we deign to criticise, we are forbidden to overwhelm with condemnation where good and bad are as persistently intermingled as they are in most works, even of the so-called masters. Certainly, in a work of necessity or utility which is sought to be so formed as to satisfy at once the demands of utility and of art, this principle admits of no qualification. If not for art's sake, then surely for our own sake, let us not fail to derive pleasure from the modicum of good in all things. Let us not stunt our faculties by the habit of contempt. Let us see things with both eyes open, and apprehend them with all our faculties alert, knowing wherein and why each work is imperfect, but even more clearly knowing wherein and why it is good. Only the latter view point affords nourishment to the creative faculty. The apprehension of the bad is negative, inactive; a faithful check upon error, but never a stimulus to creation; whereas, every time that we fully grasp the essential characteristic of the good in any work, we have added power to brain and impulse to heart, and are better prepared for the task of creating.

An interesting paper upon "Testing Brick," by Ira O. Baker, professor of civil engineering in the University of Illinois, was published in the March number of the *Indianapolis Clay Worker*. Tables of tests of Illinois brick (fifteen varieties), the absorptive power of stone, brick and mortar; transverse strength of Illinois brick, transverse strength of eastern brick, transverse strength of stone, etc. Different methods of testing brick are described and the points of difference carefully noted show how necessary it is to have a clear understanding of the method of making the experiments, and also the effect of a variation of the method. The writer mentions a fact that should be carefully noted by architects and contractors, and that is that to simply say that a brick stood so many pounds pressure per square inch gives no idea whatever of the quality of the brick. The manner of testing should also be given.



### Sketch Clubs.\*

BY WILLIAM BRYCE MUNDIE.

A FEW years ago there was but little notice taken of the architectural draftsman of this country, but now he is being everywhere recognized as an important individual, both in the office and on the work. Sketch clubs are being formed with astonishing rapidity in all of our principal cities and art centers, and on every hand is seen the desire of the American draftsman to educate himself, in the absence of government schools.

Not only in architecture alone is this discernible, but also in the arts allied to architecture; terra-cotta, stained glass, decoration, tiles, work in wrought iron, brass and bronze, cabinet furniture, wood and stone carving, etc.; everywhere is the draftsman and designer becoming more important as the years go by, showing that infusion of taste has in all cases increased, and draftsmen who, ten years ago, were wont to make a hobby of one special design for a city residence, another type for a country house, and so on, duplicating this month what he did last month, now finds himself on the shelf, and a public, having had a taste of originality, no matter how bad it was, will see that the architect and designer who still maintains and adheres to the old traditional types, stays upon the shelf or mends his ways. The originality of which the public has had an oversupply is a good fault; it has stirred up one and all to keep pace with the advancing times; but it sadly lacks reason and study on the part of the designers in general, and to trace it to its beginning, the designer acquired his education as he went along in his daily routine of office life as best he could, for the want of better instruction, his main text-book, and that from which he gleaned all his knowledge of the style in vogue being the architectural journals which he received monthly or weekly, and from a little perspective, or oftentimes distorted sketch, he cribs his ideas, instead of reasoning for himself, studying his authorities and standard works, striving to do more serious work, depending more on the common judgment he possesses, and honestly design his own work, and not depend on others for ideas and the tricky, showy drawing that he may be able to make.

Sketch clubs endeavor in a small way to supply part of this long-felt want. Judges and advisers are selected who are not influenced by trick or catch, and the stamp of good, honest, skillful work is accorded its just claim, and its value is preserved, paying compound interest as well, and the lapse of time will continue to add to their value. Another instance of the increasing interest taken in draftsmen is seen in the directors of our leading architectural periodicals founding sketch-club competitions for the country at large; also handsome sums for traveling scholarships; and we find medals and honors now being offered, all tempting the draftsman to step forward and accept the chance to better himself and the profession in general.

In this busy United States the draftsman is a hard-working individual, and, after his day's work is over, cannot do another half day's work in endeavoring to add to his store of knowledge by the artificial light of a gas jet, and next day again do justice to his employer, who expects him to be in condition to do his work.

There is nothing arduous in sketch club work; I mean work laid out in the syllabus of the club; it is more recreation and pleasure than work, a competition once a month, reading of papers and discussing them afterward, sketching from the cast or off-hand designing, a lesson in water-color on Saturday afternoon, or if his employer requires his services then, and the draftsman can conscientiously do so, this can be done on Sunday morning during the winter months, and in the summer, with the club members, sketching trips to the suburbs and surrounding country may be indulged in, where more can be learned of nature's greatness and of the invisible power which regulates this earth than many a sermon has ever taught, and the Sunday is not devoid of its teaching. The regular club meetings may be held weekly, or every two weeks, and who is so behind this age that he cannot give up one, two, or three evenings a month for his own benefit and education, which he cannot attain in any other way, and the pathway has been unlocked through the hard work of others who are always ready to welcome and help him.

Sketch clubs should not consist, as the mere name implies, to sketching only and the artistic side of the question. The practical side should have its just share, for you will find but few men who are artists as well as constructionists; in fact, by far the larger class of draftsmen attain to the practical side; almost everyone has an affinity for the one and a dislike for the other, and this is where sketch clubs, if managed well and used conscientiously by the members, are a splendid medium through which one who has a dislike for the one particular branch, yet knows it to be invaluable to him, has a chance offered whereby he can by special effort cultivate his weak points, for strong points are usually well able to care for themselves. For the practical members, the papers and discussions they will find are the majority of them on practical subjects, and it is better for club committees in outlining the year's work to make them so; then visits can be taken to buildings in course of construction, or already completed, where the special features can be noted, seen and discussed; then blackboard lectures can be given, such as would be given by a school professor, by some of the members who are experts on construction, and the working of formulas and the setting forth of theories.

Always welcome draftsmen to your meetings. Invite them to come in and take a hand in your work, enter into the competitions and take part in the discussions, and no draftsman can dispute the fact that he would be benefited practically, artistically and intellectually by so doing; and they would thus be enabled to impart the knowledge acquired to others under them, increasing many times the benefits derived from being a working member of a sketch club,

\*Paper read before the Chicago Architectural Sketch Club, March 11, 1889. Revised by the author for publication in THE INLAND ARCHITECT.

and this for the profession itself should command respect and assistance from every practicing architect who should urge upon their draftsmen the necessity of accepting the chances offered. It is no great task to form a sketch club. For a place of meeting some good-natured architect's office will serve until the club is on a better footing, and it will also be convenient to some. A club can easily be formed of from six to a dozen members for a start. With this, and meetings twice a month or more, and the small outlay in expense, there is nothing to lose and everything to gain. It is but a trifle compared with the benefits derived, so start a club in every city where a sufficient number of draftsmen can be found for one or two clubs, if there is sufficient to support it; the more the merrier, and local competition would add spice to the efforts.

The draftsman today, whose talent is given to designing carried on in connection with office business, is a good candidate for a sketch club. Here he can get such incidental art training through the competitions and friendly rivalries of value to him in addition to that acquired in the office. There are many draftsmen and students who cannot afford academic training by attending the Institute of Technology, Cornell, Columbia or other institutions of almost equal worth, and perhaps that institution whose department in architecture stands unrivaled in the world, the Ecole des Beaux Arts, in Paris. It is for these that sketch clubs are formed for the improvement and advancement of its members in all matters pertaining to architecture as should be set forth in the constitution.

It is not everyone that can become an architect. The student of architecture must possess natural gifts, for they can never be acquired. The technical skill may be acquired by proper application, but this skill would be much more useful if it was enriched by the gifts of imagination which impart feeling, spirit and dash to the work. The bestowal of natural gifts is not with any school or sketch club, but the development of such gifts as the student may possess and the teachings of the technical work of the profession is with the schools and sketch clubs, which aim to instruct those who are to become the designers of the buildings of the future.

At present, when architecture is taking so great a hold on the desires of the people and the moneyed classes as it is in the cities and towns of the whole country, a great demand arises for the highest skill in draftsmanship and design. It would be well, therefore, for the draftsman of today to lay hold of the opportunities extended to him for the advancement in taste to be expected of a general education of the public and the consequent elevation in character of the demand for architectural art. Drawing is the invaluable essential to the draftsman, and when trained and cultivated makes him a more intelligent and serviceable man to have in an office; if he attains to real skill in the use of his pencil and develops taste and talent, with training he becomes a valuable man at once to sketch and study, but it is a mistake for the draftsman to do this alone if it can at all be avoided. The best teacher you can have is one who is a little more informed than yourself, and I think it is true, in every class of learning, that the opportunities and the desirability of associating with other students is on the increase, and student friendship is of the lasting sort; and when the future generation of architects have learned to live like brothers, and not as characters that bear watching when in each others' society, there will be less need of a code of ethics to keep some members from cutting each others' throats. An architect must live, but his highest reward is the admiration of those who are qualified to judge.

The wonderful progress of photography has done much for architecture in the past ten or fifteen years, and I hope it will do more; but whether you should purchase photographs or make them yourself they are worthless as substituted for the results of sketching and making measured scale drawings. Simply looking at a building is not of much permanent value or use to you, you ought to sketch it on the spot; for, when you draw anything your attention is riveted to it, and to some extent you comprehend it or strive to know why, and you will be likely to remember, while the sketch will always remind you of what you saw and fix it in your mind. What could be more enjoyable than, in company with others, to take a holiday trip and go sketching, taking off the roughness and the hard knocks encountered in the daily routine of office work and office life. To anyone who has some ability with his pencil let him try it and he will regret that he did not attempt it before. No more enjoyable holidays could be spent than a sketching trip in a good section of country abounding with good subjects.

In our time an architect has got to be not only an educated but also a cultivated man. He must know all about buildings; men and their manners; drawing and art; and not only building but all kinds of building, their purpose and the means employed for providing for that purpose. Vitruvius tells us that an architect should possess a knowledge of everything pertaining to the arts and sciences, in short, he should know everything. Professor Roger Smith, of London, tells us that "the architect must understand structure, materials, appearance, defects, methods of working, building sites, surroundings, drainage, sanitation, appliances, heating, ventilation, etc., in all its practical details. Decay, disruption and their prevention is also part of his education. The artistic principles of the designs of successful buildings, their enrichments, forms, moldings, etc., should be his study. He should be at home on the building in course of construction, and able to correct mistakes in construction before it is too late. In the practice of his profession he is brought into the material carrying out of his designs, and the work is done by other hands than his own. The operation is beset with difficulties and he needs tact, command of temper, presence of mind, good sense and a general ability to get along well with his fellows. He must be familiar with business usages and such laws and customs as are involved in his work. Withal he must be an artist. A building shall first be erected on



paper, therefore, with his pencil he must make clear his ideas to his client, and to those who follow later in the execution of his work. Drawing is the most essential acquisition. The good draftsman must be able to think through his pencil, draw all the ornaments on his buildings as an aid to the workmen in carrying them out. He must be a master of perspective and at home with color. In using his aids he must have the inspiration of the artist, and he will be all the better if he can improve himself by foreign travel and by mental discipline and social intercourse."

In the model architect we see the thorough gentleman of society, the lover of art, the student, the practical, shrewd business character and almost perfect man. Thus it will be seen, the architect should be socially an interesting man; he should be rather a "hale fellow, well met," making friends with all and enemies with none, for the architect does not advertise; his work and his setting forth before the public, whether at his club, if he is lucky in having enough money to pay his initiation fee, or whether by his position in society or other associations of which he may be a member, all tend to make him known and pave the way to further undertakings. Now, my experience with draftsmen has been that they, as a rule, are not of the above disposition, and need to have some influence brought to bear to bring them out and instill confidence into them in order that they may possess that taking, off-hand, know-everything manner, even if they don't know it at all. There are many learned architects whose superior knowledge is like so much brick or lumber in their brain, some one else must use the trowel and hammer in order to get it out of them; they are so distant and diffident that it is only after years of acquaintance that you really find out what they do know and what a grand success such men would be if they only possessed that tact and ability to show it to the public through the many channels offered, even if they should make a mistake once in a while; the best men make mistakes; there is no need of rushing forward with it, but in a quiet, unassuming way assert yourself and then have the knowledge to back it up. Here is a stepping stone offered in the sketch club, come in, get acquainted with your rivals, slander each others' work right and left, get up out of your chair and say something; if you only second a motion; it breaks the ice, and in after years, when you look higher in this great era of organization and single out an association, state or national, that you would like to become a member of, your little friendly tilts with your former rivals, your knowledge of parliamentary ruling and committee log rolling will be of service to you, and the meetings of your old friend, the sketch club, will come back to your memory as hallowed reminiscences of your student days. This social influence is a powerful and good instructor in a club society, is mutual; all are teachers and pupils, and in all the alliances and rivalries of business, in the conflicts and friendships of life, by our public and private examples, interchanges of experiences, hostile criticisms and friendly encouragements, we learn a great deal, and more than that, we instruct others; therefore, make it a point to be at every meeting.

All practicing architects and others interested in the allied arts must be deeply and directly interested in the development of the profession of architecture; it is a duty for them to take an interest in the younger student, and they must therefore take an interest in the means used to impart knowledge to those who are to follow and step in where they leave off. It should be a pleasure, as it certainly is to the interest, of every architect, to encourage the highest standard of educating those who are studying under them, for in this country the architectural student and draftsman learns by far the greater part of his profession along with his daily office work. It will be a source of comfort to architects when their offices can command skillful draftsmen from the schools and sketch clubs of this country, and such instruction will make our nation richer by making our architects more tasteful and skillful, and American architecture, by further study on the part of those now practicing, and especially those who are to practice, will very soon take a dignified stand, possessing more rhythm, fitness and proportion; adding to this our ever bubbling-over of originality and picturesqueness, we shall find the architecture of this country beating the record and establishing a name for the architects of the present century.

Nothing can be more beneficial than an interchange of ideas among architects and designers; and the proper way to bring about that interchange is to organize a sketch club since we live in the age of organizations; look at the formation of a club as that of a business and since the business end of our existence is to learn and work, then let it be for that purpose. First of all fortify yourself to stand discouragement at the start, and begin modestly. There is nothing to be ashamed of in a modest start, and all things have grown up from small beginnings. Never be discouraged at finding in the judges' decision in the competition that you do not arrive at the top, or even get a mention. Every such attempt, invisible as it will be, sharpens the wits, confirms the courage, establishes a confidence and self-reliance, engendering a growing force to press forward and win new victories. Let it be one of the well-understood though unwritten articles, that no drones are wanted in your club. A few members full of enthusiasm and willing to work hard for their knowledge are worth two dozen of those who are overclever and talented, who work only when the spirit moves them and then quite likely have to be goaded to it. A club needs members who possess lots of enthusiasm, for the time will come, as it does in all clubs of this kind, when the enthusiasm gets down pretty low and the first struggle, if safely tided over, will not likely occur again. Have a definite aim in forming and joining a club; once in, do not rest content to remain a passive member, but take hold of the work, for it is mutual and there is lots of it to do, too. Do not imagine a sketch club runs itself; it won't; it needs to be pushed, and hard pushed, too. Strive to be progressive, for the time will come when the progressive draftsman of today will be the progressive architect of the future when he thinks he possesses

the necessary ability to start for himself; and by his club companions he has a chance to compare his standing with others, thus inspiring confidence and energy in his enterprise. Above everything let your club be organized on the common basis for the benefit of the draftsman and not for defense; be opposed to anything governing the understood laws of the profession; in other words, approach no question having a tendency or reference to trades unionism, though I think it will never come up, as the draftsman who has ambition enough to join a club has more nineteenth century common sense than think of such a thing as trades unionism.

Let the club have a higher aim and object. Let this be to produce and harbor an artistic fellowship between all who feel an interest in architecture, and in a social way, for architecture itself is a social expression, and cannot flourish any more than any other fine art if it is not loved and keenly appreciated. In a club all should be on a level plane; the head of one man may reach a little higher than his companions, but they all stand on the same level footing, all banded together for the common good, each one prepared every time to give up small personal advantages for the good of all concerned. Clubs should be conducted with fairness to all, and parliamentary rulings should not be decided too literally among a gathering of gentlemen, all interested in the same ending, and with the same principles at issue. The club should be made interesting to members; it should be such a pleasure to attend the meetings that no one would miss being in attendance. If the club treasury gets too large, a piano might be rented or bought, and usually some member is musical enough to do the honors; club songs might be sung, etc., and some evenings might be given up wholly or in part to the carrying out of a light and entertaining programme, combined, possibly, with a stereopticon exhibit of architectural views. Also, in our endeavor to enrich the minds of all who are ambitious and desirous of advancement in architecture, one of our foremost and best aids lies in the pursuit of books. Through their medium, we have all the thoughts of others; of those living with us, and those gone before; therefore, every club should possess a small library of some sort; even if only the current architectural journals were kept on file, it would be of some interest, and also at times a help to the members.

There is no reason why sketch clubs throughout this country should not acquire as strong a footing as our university fraternities, or some of the prevailing orders and secret societies, where dues and assessments are heavy, and uniforms cost money; all for show, though in some cases, I believe, there are insurance policies thrown in; but what better policy can be had than the fact that you are advancing yourself, and at the same time in an enjoyable way, with prospect of a salary increase to reward you for your efforts, with prospects of an immediate return, making insurance at once assurance.

Now let us look into the question of an alliance of all the architectural sketch clubs in this country. Some three years back, when other clubs began to form, the idea of a league of draftsmen, or some sort of an alliance, suggested itself, but was dropped as being something to be born later; it was conceived, also, by other clubs, but it seemed as if its time had not yet come.

It was not my intention to say much upon this subject at first, but every day brings fresh news of the desire for a convention, or a league of all the architectural clubs, and now, not only is this talked of, but an alliance of all art societies of every kind in one grand whole, comprising all the allied arts and art clubs, forming one tremendous association or art convention, having for its members every art worker in the country.

This scheme is so new to me, and so large and unwieldy to comprehend without quietly giving it serious and tried thought more suited to older minds than mine, that I hesitate in expressing any opinion, though I confess that it does not strike me favorably; but if art will receive any encouragement, for its sake I stand ready to be convinced.

The mingling of the architectural world in with that of sculpture and painting is a good step in the right direction, but the still farther step of admitting draftsmen as members does not strike me so favorably; only the very artistic draftsmen would take an interest in such an organization, and the benefits to be gained by the draftsman would be meager in comparison with architects, painters and sculptors, and sketch clubs and draftsmen might lose their identity in being placed in line with others of a more artistic aim who would flock in thousands into the scheme and swamp all but themselves, as painting and sculpture have to be placed continually before the public and pressed upon them, while architecture is always before them and is a necessity, not a luxury.

Just now my impression is that if each kindred art would combine itself, holding its own conventions, giving its prizes to its own class and devoting its whole time to itself, it would be very beneficial and worthy of encouragement; however, the question with us is the advantages to be derived from an alliance of all the sketch clubs in this country. Let us see what the important questions are. First, are we ready for it? Second, is it feasible? Third, what is to be gained by it? Fourth, is it what we want? We have, from what I can learn through the architectural press, about sixteen or possibly twenty clubs who would likely take part in this convention. They are all holding their own local competitions, weekly meetings, etc., and are, from all accounts in a very flourishing condition, and allowing an average active membership of thirty in twenty clubs, about six hundred members.

Any convention being called together, delegates must pay their own expenses, or the club which they represent. It has been suggested that each member of this league, for such it certainly would be, should pay 50 cents per month into the national society, say \$300, a sum which the postal-card printing and incidentals would almost obliterate. A general secretary should have some compensation or



paid help. Prize money would be out of the question, but one or two medals might be given.

In answer to the first question, I think we are not ready for it; we are not sufficiently strong in numbers or clubs to warrant it as yet.

Is it feasible? The division of our government into states, with their several capitals farther apart than London, Paris, Brussels, Berlin, Vienna, St. Petersburg, Madrid and Rome; does not the enormous geographical area of our country prevent, at any rate for a time, national action in this matter?

Supposing we had sketch clubs in existence in all our capital or metropolitan cities, they would be spread over this country as the capitals of the European countries are distributed over Europe. Of course, in Europe such a scheme would be impossible, as it is peopled by many nations speaking different languages and possessing different ways and manners of living, while we have the advantage of speaking a common tongue and possessing more direct facilities for inter-communication, uniting forever these cities and states into one nation. Here we propose covering an immense area.

What are the advantages to be derived from it? We all know what the spirit of rivalry will do to better and stimulate new life into the old ways, but do we not have that in our clubs? Is not our local rivalry enough for the present? Would there not be rivalry and competition enough if we had independent clubs in every center from which would emanate the architectural education of each state.

I have endeavored to look into this matter of a sketch club alliance in as unfavorable a light as I can in order to satisfy myself if it is really a crying want. At present I do not think it is, but the time is coming when the difficulties can be overcome, when the movement is strong and shows a healthy, steady growth. Then we want a general convention outlining a course to be pursued and work to be taken up, competitions to be given out, then the local spirit of rivalry in a club might become national, club against club, man against man, would just double the interest taken, bringing out good work, and by all means let us have it. It is the most significant scheme before the architectural world today; and with fostering care it will soon grow to demand just what is now being agitated.

The last question we have not touched as yet. Is it what we want, or, more probably, is it what we need?

It seems to me the one thing needful for making architecture more proper and dignified as a profession, and more beneficial to the nation, is a central institution which would be to the profession, and sketch clubs as well, what the heart is to the human body, a center of vitality and a source of circulation of the life-blood of the profession. This is what we sadly need in this country. An institution similar to the Ecole des Beaux Arts in France, supported by the government, where rich and poor alike can receive the necessary education, fitting themselves for a higher position in life and for the benefit of the nation.

Then will architecture approach more the honorable position she should occupy; such an institution, where honor is first and pecuniary gain of secondary importance, should be advocated throughout the length and breadth of the land. Form sketch clubs everywhere for the present, teach yourselves in the meantime, while waiting for government to get to work, and, with the assistance of every architect, draftsman, and anyone in connection with building as an art and a science, not a trade, unite in one demand to establish a national school of architecture. And as soon as this country awakens to the sense of her deficiencies in this matter there will be as great a rush to do it as there has been tardiness in commencing it, for the ground will be fully paved, and the demand for such refinement and cultivation will be general from one end of the country to the other.

## History and Development of the Chicago Architectural Sketch Club.\*

BY GEORGE BEAUMONT, ARCHITECT.

IN the November number of THE INLAND ARCHITECT for 1884, there appeared an article, under the *nom de plume* of "T. Square," entitled "Architects Draftsmen." This article gave a brief review of the methods by which a young American obtains his architectural education, how his imagination is excited with the possibility of creating structures which shall be monuments of fame and place his work on a level with that of an Angelo, and all before the first rudiments of his profession are even thought of.

This lamentable but, unfortunately, true state of affairs impelled "T. Square" to make an attempt to remedy these deficiencies, hence the publication of the letter. About the time this article appeared, I was introduced to Mr. J. H. Carpenter, who asked me if I had read it, and what I thought of the desirability of forming a club for the mutual improvement and interchange of ideas among the draftsmen. I at once heartily agreed with him, and offered my services toward helping along such a scheme; before leaving me he intimated that he was the writer of the article in question. Our next move was to get the draftsmen interested, so with that end in view, Mr. Carpenter wrote another letter, which was published. This resulted in issuing invitations to twenty of the most likely men, calling for a meeting, at which could be discussed the question of organizing a sketch club.

The first meeting was attended by eighteen of the leading draftsmen, all of whom were in full accord with the movement, and showed such enthusiasm that a committee was at once appointed, consisting of Messrs. Laurie, Zimmerman, Carpenter, Pond and myself, to prepare a constitution and by-laws, and the eighteen gentlemen present were voted to comprise the charter members of the association. The next meeting was fixed for March 12, 1885, when

the organization was perfected. Then came the question of rooms, and how we were to pay for them. This matter was speedily settled by the generous action of the Chicago Builders and Traders, who offered us their large room for our meetings, with the use of steam heat, gas and janitor's services entirely free of cost until such time as we could afford to occupy a room of our own. Undoubtedly, this liberality put the club on a sound footing, and by carefully husbanding our resources enabled us to hold together and make the club a success; and I have no hesitation in saying that if the Builders and Traders had not taken us by the hand and treated us so handsomely, the C. A. S. C. would have dwindled away for want of financial backing.

Having procured this temporary home, we set to work and elected Mr. J. H. Carpenter as first president, and Mr. W. G. Williamson, as secretary, and an Executive Committee, consisting of Messrs. Carpenter, Laurie, Dawson, Pond, Williamson, Beaumont and McLean; all men of varied experience and thoughts, but all of one mind with regard to the advancement of our newly formed club.

According to the constitution adopted, the object of the association is the advancement and improvement of its members in all matters pertaining to architecture by methods such as regular meetings of its members, by increasing the facilities for study, readings or lectures on professional subjects, friendly discussion of practical matters, competition in design and drawing for exhibition, visiting selected buildings, and by any other means determined upon by the association.

The membership consists of three classes, namely, seniors and juniors, whose qualifications must be service of three years in an architect's office or in kindred arts, service of one year in an architect's office, and honorary members, who are elected as such because of unusual interest manifested in our aims and endeavors.

The by-laws insist upon all applications for membership being accompanied by a drawing made by applicant, and which, I assure you, must be of no mean order, or it would be at once rejected by the executive committee. Each senior and junior is required to deliver a paper, or submit, at least, two drawings during the year, which shall remain the property of the club.

The initiation fee was originally \$3, now it is \$10, and the monthly dues 25 cents, now changed to \$1. When the motion for this advance was before the club I voted against it and have since seen no reason to change my ideas on the subject.

Honorary members are exempt from fees. I mention this especially for you, gentlemen.

The regular meetings are held fortnightly, and the average attendance is very satisfactory.

The first year's membership numbered 32; present year shows a total membership of 65, or 33 more than the first year, which, I think, is an excellent record for a club of this kind, which requires a certain amount of hard work and attention from its members.

The first year passed without any signs appearing of disinterestedness, the Executive Committee doing its best to make the meetings interesting and instructive.

At the commencement of the second year's work Mr. Harry Laurie was elected president, and a syllabus having been arranged and printed, the club settled down to systematic work. Papers on practical and artistic subjects being read and discussed with zeal and intelligence that was very pleasing and augured well for the success and advancement of the club. The third year I had the honor of being president, when a similar routine was gone through and steady growth noted. The fourth year I was again honored with the presidency. In the meantime a constant agitation was going on with regard to permanent quarters, but the state of our finances was such that we hesitated taking the responsibility of paying a high rent out of a small revenue. Fortunately, the club had many friends, who, hearing of the large sum collected from the members at one of the regular meetings, cheerfully sent in their checks for such generous amounts that all fears of assuming financial obligations were at once dispelled.

After much hunting about we found a room in the Art Institute, which, with considerable renovation, just suited our purpose, and there we moved, full of hope for the future. From that time on the club has never ceased trying to better its condition and instruct its members, and keep pace with the times. The monthly competition in designing have produced some really good work and show what rapid strides have been made by many of the members, not only in the conception and general working out of the subjects given, but in the rendering of the drawings, particularly in water colors. This is the club's forte, and shows more advance than any other department.

Once a year we have a banquet and a most enjoyable time is spent by those privileged to be there. Last year's exhibit of drawings was of unusual excellence and gave general satisfaction.

Mr. W. G. Williamson is now the president and much of the club's success is due to his hard work during the four years he was secretary.

The Chicago Architectural Sketch Club is known throughout the land. It has come to stay and it is already being acknowledged by able men who desire to see architecture placed on a higher level. Recently, one of our citizens (Mr. Robert Clark) donated \$1,000 for the purpose of offering an annual medal to be competed for by the members, and another citizen (Mr. Phimister) has followed Mr. Clark's example! Shall the good work stop here, or shall the Illinois State Association of Architects give a helping hand? Now is your time, gentlemen, for there is a general awakening throughout the land. Will you accept it? Will you assist in the establishment of an architectural school where the rising generation can be carefully taught what the duties and responsibilities of an architect are? Will you help to lift our profession out of the slough of despond, where it has lain for so many centuries? Will you work for and never rest until you have succeeded in putting architecture on the same plane with law

\*Paper read before the Illinois State Association of Architects, March 18, 1889.



and medicine, or, in other words, until the profession is closed to every man who cannot command the necessary skill to pass an architectural examination which will establish his right to be called an architect?

Glance over our city and note the advance in the designing, planning and construction of commercial and domestic buildings made during the last ten years, and if we would retain and improve upon our present methods a better educated and carefully trained class of young men must follow us. The day is passing when a glib tongue is more successful than genuine talent possessed by a skillful but modest man. Both the legal and medical professions are deploring the low standing of abilities necessary to obtain a diploma. So surely, gentlemen, it behooves us to make a move and see that the public are better served in the future than in the past, and we cannot do this more successfully than by encouraging the formation of an architectural school where our young men can be properly taught the art of building.

### Illinois State Association of Architects.

THE regular meeting of the Illinois State Association was held March 18, President W. W. Clay in the chair. The following members were present; W. W. Clay, H. W. Hill, Samuel A. Treat, Dankmar Adler, George Beaumont, O. J. Pierce, L. D. Cleveland, N. S. Patton, Henry Raeder, Smith M. Randolph, Clinton J. Warren, L. J. Schaub, L. G. Halberg.

After the usual lunch, the minutes being approved as published in THE INLAND ARCHITECT, the secretary read the following communications from the Chicago Architectural Sketch Club and the Michigan State Association of Architects, indorsing the resolutions of the association in regard to the office of supervising architect.

O. J. Pierce, Secretary:

CHICAGO, February 26, 1889.

DEAR SIR,—The resolutions you favored us with were read at a meeting of the club this evening. I have been instructed to extend our united approval of the course presented to elevate the standard of the architecture for public buildings and wish you the success it merits.

Respectfully,

C. A. KESSELL, Sec'y Chicago Architectural Sketch Club.

O. J. Pierce, Secretary:

DETROIT, March 11, 1889.

DEAR SIR,—At the last meeting of the Michigan State Association of Architects, held on March 7, I presented for consideration your circular in regard to changing the method of appointing the supervising architect of the treasury. After a thorough discussion of the subject the resolution of your circular was heartily and unanimously indorsed.

I feel perfectly free to add that there can possibly be no question as to the desirability of a radical change in the method of procuring designs for government buildings. Almost anything will be better than the present arrangement. The members of our association feel very strongly on this and stand ready to take prompt and strong action in assisting you in any steps your association may see fit to inaugurate for the good of the government service.

Very truly yours,

J. S. ROGERS, JR., Sec'y.

S. M. Randolph submitted a report upon the death of Edward Baumann, which read as follows:

WHEREAS, The Illinois State Association of Architects has learned of the death of Mr. Edward Baumann, of Chicago, which occurred in Berlin, Germany, January 26, 1889, therefore, be it

Resolved, That in the death of Mr. Baumann, our profession has lost an honorable and accomplished member, a close student and hard worker, whose courteous bearing endeared him to his acquaintances, and whose practice reflected credit upon our association.

Resolved, That these resolutions be spread upon our records, and that a copy be sent to the family of our deceased brother architect.

S. M. RANDOLPH,  
J. L. SILSBEE,  
HENRY W. HILL. } Committee.

On motion of S. M. Randolph, the resolutions were ordered engrossed and presented to the family of the deceased.

Mr. Beaumont read an interesting paper on the Chicago Architectural Sketch Club. (Printed on page 57.)

In the discussion that followed it was stated by Mr. Adler that the first requisite (as was stated in January number) was money, and at least an annual income of \$25,000. That no less a sum than that mentioned would do. There was a time, a few years ago, when he thought that a school of architecture could be established by the architects lecturing, making the expenses small, but it did not seem so now. Mr. Adler stated that his views in regard to the vital necessity of such a school were well known, and that the encouragement of the profession could be depended upon.

Mr. Patton thought it was time for the establishment of such an enterprise in Chicago, and now that the question had been brought up there seemed no reason why the association should not investigate the question, collect general statistics and present them to this association. Mr. Patton also stated that all architectural schools in this country were attached to other institutions, and it might be wise to investigate and see if any now existing would take hold of the matter. The Newberry Library now contemplates a large architectural library and this would materially aid such a school. Mr. Patton closed by proposing a committee to investigate, and referred to the Lewis bequest for a school of technology, and that bequest might be turned in this direction.

Mr. Hill seconded Mr. Patton's suggestion, and, on motion, it was so ordered.

The chair appointed N. S. Patton, H. W. Hill and George Beaumont, as such committee.

Mr. Adler suggested that Mr. S. A. Treat and W. W. Clay be requested to prepare a paper upon the progress of the designing of first-class residences to be presented at the next meeting. The suggestion was adopted and made the order of business for the next meeting.

The meeting then adjourned.

### An Important Legal Decision.

A CASE has just been decided at Chicago, in the superior court, which defines the position of the architect in regard to superintendence, and demonstrates that an extra charge can be collected where his services as superintendent are demanded beyond what is termed "reasonable" superintendence.

The case decided by Judge Hawes was brought by Architect Francis L. Charnley against H. M. Kinsley. Mr. Kinsley engaged Mr. Charnley to design and superintend his restaurant building on Adams street. When it was under roof, about one hundred days before its completion, Mr. Kinsley arranged with his architect to give his entire time to the work of superintendence, so that the building would be rushed through in the shortest possible time.

The evidence showed that such an agreement was made, but that no contract was entered into or amount stipulated. It also showed that the architect's part of the agreement was carried out. The point upon which the decision seemed to rest was the amount of compensation.

The architect sued for two per cent or about three thousand dollars (about thirty dollars per day). Five prominent architects testified that such service was worth not less than \$50 per day, and hence Mr. Charnley's charge was not exorbitant. The judge, however, decided that the architect should receive \$1,500 for such extra service.

### A Warehouse for Pressed Brick.

PERHAPS the largest and most comprehensive exhibit of pressed brick in this country has just been completed in Chicago at the new warehouse of Lockwood & Kimbell, the Chicago agents for the St. Louis Hydraulic Press Brick Company.

It is situated on the lake front at Twenty-fifth street. The warehouse proper, 125 by 112 feet, with a capacity for storing 3,000,000 brick, and the yards contain track room for thirty cars. Besides the large variety of shades of red brick there are roman brick. These are in several colors, are 12 inches long and 1½ inches thick. Also full-sized brick 12 inches long and rough-faced with slightly beveled edges. A new enameled brick is especially interesting, which will enable architects to produce fine effects in color in the wainscoting of halls, vestibules, etc. Besides the plain colors, such as white, blue brown, etc., there are a large number of patterns in all possible shades, the "alligator" being a very descriptive name given to one variety. It is also noted that there are about 150 patterns of molded brick in stock. It is an exhibit every architect should see, both because it shows a large quantity of material at hand, and that a knowledge of the variety of patterns and colors accessible can in no better way be obtained.

### A Model Hospital Addition.

THE east pavilion, now about to be added to St. Luke's Hospital at Chicago, will be known as the Samuel Johnston Memorial. It will be a five-story building about 99 feet long. It is somewhat larger than the present west pavilion, and very similar in plan, with this exception, that the first-story of the east pavilion is entirely devoted to the free dispensary; this having a separate entrance on Indiana avenue, making it impossible for patients while there to stroll about the hospital corridors.

The office of the institution will be placed on this floor, close to the present corridor entrance, while at the rear are sleeping rooms for the druggist, male help, and a storeroom for clothing of hospital patients. On the second floor is the men's surgical ward, containing fifteen beds, a wound dressing room, a large room looking east over Indiana avenue, to be used for a special ward, and which will contain three beds.

Facing south, with a balcony outside, is a large and well-lighted dining and sitting room, having next to it the ward kitchen, which has been designed with all the latest improvements. On the same floor, in the rear, is a large bathroom, a clothes room, a linen room, lavatories, etc.

The third floor is similar in every respect to the second, and is to be used for a women's surgical ward. To the children has been devoted the entire fourth floor, the children's medical ward being at the south end of the building, adjoining the children's surgical ward, containing nine beds each.

For crying children there is a special ward, containing three beds. Great attention has been given to the children's floor, to make it as perfect as possible. The children's play room and dining room is 16 by 30 feet long, faces south and has five large windows and, like the other dining rooms, a balcony outside, which will be entirely inclosed with fine but strong wire guards to prevent accidents. The children's floor is provided with suitable bathrooms and lavatories, as described above. There are, besides, the indispensable clothes and linen rooms.

The fifth floor is entirely given up to the gynecological department. We have there an operating room in every respect equal to if not superior to the present oculist's operating room. The room is 13 by 19 feet and faces east on Indiana avenue, and has a large north light. There are eleven rooms on this floor for patients, all large, sunny rooms. There are also dining and sitting rooms, kitchen, lavatories, bathrooms, etc., as on the second and third floors.

It is intended to construct the building in a thorough manner, special care having been taken to make it as near fireproof as possible without going to unnecessary expense. A large iron staircase is provided for in case of fire.

The ventilating and heating has been very carefully considered, and will probably be even a greater success than the system at present



in use at the hospital. The lavatories will all have asphaltum floors and marble wainscot. The sanitary arrangements have been made the subject of careful study, and the rooms and halls will all be wainscoted with Portland cement.

The accommodations of the pavilion are as follows: First floor, six beds for male help; second floor, eighteen beds for men; third floor, eighteen beds for women; fourth floor, twenty-one beds for children; fifth floor, seventeen beds for gynecological patients, making a total of seventy-four beds for patients and six for help. It is intended that the eighteen additional nurses required shall be accommodated with rooms in an additional story over the kitchen building and in direct communication with the present nurses' quarters over the west pavilion. On the whole, this addition will exhibit some of the best modern features in hospital construction and arrangement.

### Our Illustrations.

Wholesale store building for Mr. M. A. Ryerson, Chicago; Adler & Sullivan, architects.

Residence for Mr. Wm. Bunge, Washington boulevard, Chicago; Treat & Foltz, architects.

Entrance of Memorial Hall, Lawrenceville, N. J.; Peabody & Stearns, architects, Boston.

Residence of M. L. Beers, 5464 Jefferson avenue, Hyde Park, Ill.; M. L. Beers, architect.

Pen sketches of "Red Gables," Phillips Beach, Swampscott; Arthur Little, architect, Boston.

"Clonmel," residence for Dr. Thomas G. Morton, at Stafford, Pa.; Albert W. Dilks, architect, Philadelphia.

Hotel building for Mr. Paul Cornell, Fifty-first street, and Lake avenue, Chicago; Theodore Starrett, architect.

Design for City Front of twenty feet, awarded first place in Cincinnati Architectural Club competition; designed by Louis G. Dittoe.

### PHOTOGRAVURE PLATES.

(Issued only to subscribers for Photogravure edition.)

Interior view of First Baptist Church, Newton Centre, Mass.

The Dayton, Ohio, Public School Library; Peters & Burns, architects.

Entrance with wrought-iron gate of Third National Bank, Cincinnati; H. E. Siter, architect.

Entrance with wrought-iron gate of First National Bank, Cincinnati; Jas. W. McLaughlin, architect.

First Baptist Church, Newton Centre, Mass., general exterior view; John Lyman Daxon, architect, Boston.

Façade of Hotel Gouin, Tours, France. The delicacy of treatment both of the general lines and of the detail makes this façade a pleasing object of study, and the refinement of this work is in keeping with the reputation which Tours bears of being the city in which the purest French is spoken.

The Carthusian Monastery, known as the *Certosa di Pavia*, two full-page views of which are presented in this number, is situated a short distance from Pavia, a little off the highway, leading from Pavia to Milan. From all points of view the structure is charmingly picturesque, while the façade fairly glows with rare architectural embellishment. The style of the façade is fifteenth century Romanesque of a type developed in Lombardy, and here carried out in its most masterly forms. The masters of three centuries contributed to the embellishment of the façade, and produced the finest decorative work in this style now remaining to us. The interior of the church was begun in the fourteenth century and was completed in the Gothic style, and is richly decorated in color and mosaics. Since the suppression of the Italian monasteries the government maintains the *Certosa* as a "National Monument," and so rare a work is it considered that no art school abroad is deemed complete in its equipment without full-sized casts of various portions of this façade.—I. K. P.

### Correspondence.

*Editors Inland Architect:* ST. PAUL, Minn., March 26, 1889.

In the article on "Modern Hardware," which appeared in your last issue, occurs the following sentence:

"It often happens, even now, that when the greatest care is taken in the other details of both public and private work, to produce harmony in designs and colors, and when woodwork is scrutinized to discover blemishes in either material or finish, the selection of the hardware is left to the esthetic taste of the contractor or dealer, whose knowledge of art is acquired from the contemplation of nickel-plated stoves and decorated coal buckets, and both of whom follow lowest prices as the direction of least resistance, and then exert a further pressure on the manufacturers in the same direction, the resulting appropriateness of design, color and workmanship being what should be expected from such a combination of disinterested, artistic talent."

While we think the article as a whole is admirable, and an entirely fair statement in regard to modern builders' hardware, we feel that the sentence above quoted does an injustice, unintentional, perhaps, to a certain class of dealers in builders' hardware, whose appreciation

of the artistic side of this subject is as keen as that of any manufacturer, and of good workmanship far more so, if we may judge by the products which they have thrust upon the market. The class of dealers to which we refer are not engaged in the contemplation of "nickel-plated stoves," as the dealers in builders' hardware worthy of the name, in large cities, are not in the stove trade. Dealers who, like ourselves, have been engaged in selling builders' hardware for a number of years, bringing such intelligence as they have to bear upon it, and coming in contact as they do with architects in connection with all kinds of work, are in the way of ascertaining their requirements more fully than the manufacturer, and they have done much to educate the latter in regard to the requirements of the architectural profession in this direction. It is only too true, however, that the hardware question is often neglected by both the architect and the owner; the latter's neglect being due to his confidence in his architect, and that of the former resulting from a lack of appreciation of the difference existing between the productions of different manufacturers and of the fact that there is more opportunity for the contractor to "beat the specifications" in this line than in any other entering into the construction of a building.

Aside from the sentence, to which we have taken exception, we fully agree in everything stated in the article referred to. The Yale & Towne Manufacturing Company certainly are entitled to all the credit given them for the merit of their work, considered from every standpoint. No better evidence of this can be given than the efforts (abortive, however) of other manufacturers to imitate by cheap methods the good work being done by that company. To do this successfully, however, requires skill, ingenuity and intelligence of a higher order than the others have yet been able to bring to bear upon it. Yours truly, F. G. DRAPER & CO.

[It gives us pleasure to say to Messrs. F. G. Draper & Co. and other dealers who may possibly in like manner have misunderstood the intention of the sentence quoted in the above letter, that the author referred to such dealers as endeavored to combine the stove business with that of builders' hardware without obtaining success in either, and not to the very intelligent class, who have made builders' hardware a specialty, of which there are many, who are entitled to the confidence and respect of both owners and architects.—EDITORS INLAND ARCHITECT.]

### Association Notes.

#### CHICAGO ARCHITECTURAL SKETCH CLUB.

At the regular meeting of the Chicago Architectural Sketch Club, March 11, about thirty-five members were present, President W. G. Williams in the chair. Upon the request of Mr. Wagner the delivery of his paper upon Cuba with lantern illustrations was postponed to June 3.

Letters were read by Secretary Kessell from Professor N. Clifford Ricker, Dankmar Adler, architect, and Lorado Taft, sculptor, accepting appointment upon Clark medal adjudicating committee.

The question of extending competition time was discussed. While a strong sentiment in favor of definitely closing or abandoning competitions that were not prepared upon the date set, was expressed, nothing definite was decided.

On motion of Mr. Beaumont, the time for submitting designs for the Phimister medal was extended one month.

Mr. E. H. Seman was appointed to represent the club at a reception given by the Chicago Society of Artists.

The following resolution was presented by the secretary.

WHEREAS, It has been deemed advisable by the members of the C. A. S. C. to admit persons residing outside Cook county as members of the club; therefore be it

*Resolved*, That any person making application for membership not residing in Cook county shall be admitted as per Articles I and II of the by-laws. That they shall be entitled to all the privileges of the club except voting and holding office. That they shall be known as non-resident members, and be governed as non-resident members of the club.

*Resolved*, That the dues for each non-resident member be \$ per year, payable in advance at the first regular meeting in October of each year. Be it further

*Resolved*, That an active member who may be compelled to leave Cook county for one year or more shall have his dues reduced to \$3 a year, providing his dues have been paid up to the time of his leaving the county, and that no reduction shall be made for the fractional part of a year.

The resolution was generally discussed and amended, and finally passed by a unanimous vote.

Mr. John Middlescauf was elected a junior member. A. Heun was elected assistant secretary of the club.

In the Colonial house competition the prizes awarded were First place to "Petrach" (A. Heun), second place "Truly Rural" (W. E. Kleinpell).

A communication was received from the Cincinnati Architectural Club suggesting a national league, which, after some discussion, was laid on the table till a future meeting.

The evening closed by the reading of an interesting paper upon sketch clubs by W. B. Mundie. (Printed on page 55.)

The regular meeting, March 25, was taken up with a most interesting lantern exhibit of architectural views from all parts of the world, given by E. J. Wagner, assisted by members of the Chicago Lantern Slide Club, which also contributed valuable slides and the use of the lantern. Among the visitors were Mr. James F. Gookins,



the artist, secretary of the Indiana Soldiers' and Sailors' Monument Commission, and Mr. W. K. Eldrich.

The regular meeting, April 8, was taken up with sketching from cast, and the transaction of a small amount of business.

In the railroad station competition for the \$25 prize offered by Mr. Willard Smith, of the *Railway Review*, T. O. Fraenkel won first prize, Harry Brown, second prize, and W. G. Williamson, third prize. The prize money was distributed by the president.

In the club bookcase competition, A. Heun took first, W. H. Henderson, second, and R. A. Denell, third place.

The chairman of the art and library committee of the Chicago Woman's Club sent a communication, which was read by the secretary, which asked that, in the formation of the contemplated architectural school, there should be no distinction between sexes, and that students of either sex should be admitted.

The discussion of the proposition of the Cincinnati Architectural Club, regarding a consolidation of sketch clubs, was called for, and, on motion, the entire matter was laid upon the table indefinitely.

The election by the Executive Committee of J. Beeckman as a senior member was announced by the secretary.

About fifteen designs for the Phimister medal have been submitted. It is hoped that each member of the club will submit a design. It is not a competition, as while some one design may be selected, the plan seems to be to incorporate the best ideas of all into one design.

The club competition for a plaster frieze, full size, was extended two weeks. The next competition is for a terra-cotta vase for a park. This closes May 6.

#### THE CHICAGO LANTERN SLIDE CLUB.

The amateur photographers of Chicago have formed a club of one hundred and fifty members, who meet once a month for the purpose of exhibiting specimens of their work, and criticising like efforts on the part of amateurs in other cities. An organization embracing seven cities in America and two in England has been formed, called the Lantern Slide Interchange. The plan is for the artists of each city to prepare views for lantern slides, illustrating points of interest in and around the cities, and forwarding the plates to the other cities in the circle. The cities embraced are Chicago, New Orleans, St. Louis, Cincinnati, Philadelphia, New York and Boston, and London and Manchester, England. Quite a large company gathered at the First Methodist Church Block, March 29, and were entertained with an exhibition, which included views from Louisville, New Orleans and Boston. The rooms were darkened and the Mackintosh lantern projected upon the canvas, as an initial scene, a view from the public gardens of Boston. Scenes typical of life on the river and in plantations and cities of the South followed, all the work of amateur photographers, and nearly all of decided merit. Those showing the work of a gang of negroes on a sugar plantation were especially good, while the levee scenes in New Orleans were not only creditable from an artistic standpoint, but were valuable as showing the modes of life and phases of industry in that section.

The Chicago branch of the Lantern Slide Interchange is composed of a cheery lot of artists, and their piquant remarks formed no uninteresting part of the evening's entertainment.

#### Mosaics.

TICKNOR & Co., Boston, have published, in handsome form, an English translation, by Mr. Geo. K. Dauchy, Chicago, of Regis de Trobriand's book, "Four years with the Army of the Potomac."

THE roof of the Chicago Opera House, which was burned off some weeks ago, has been replaced by tile by the Illinois Terra-Cotta Lumber Company. This theater can now be called "fireproof," as far as its structure is concerned.

JOSEPH DOWNEY, the mason contractor, has leased to the Fuller & Warren Company, stove manufacturers, for the term of ten years, a lot on Jefferson near Van Buren street, 100 by 150 feet. He will erect a six-story building thereon, which is included in the lease. W. T. Leshar is the architect.

An appointment that will greatly strengthen the force under supervising architect Windmill is that of Harry MacLean, of New York, to the office of chief clerk or assistant supervising architect. The resignation of T. D. Fister, who has occupied the position for the past three years, removes a chief clerk who was never valuable to the department, or agreeable to those under him. Mr. MacLean was for many years chief of the repairs department, and his value as an architect and the estimation in which he is held by the employés of the office, makes his appointment of the greatest value to his chief and the government.

THE managers of the *Technology Architectural Review* of the architectural department of the Massachusetts Institute of Technology contemplate improvements in that publication for the coming year which, if carried out, as there is every reason to believe they will be, will make that journal extremely valuable. More text is contemplated, and its managers have already secured promises of contributions from Edward Robinson, curator of the Boston Museum of Fine Arts; Edward Hale Greenleaf, also of the museum, both archeologists of considerable reputation. Arthur Rotch will correspond from Paris; C. Howard Walker, from the American School of Architecture at Athens, Greece, and also one of the Assos party of explorers, a fine writer, lecturer and thorough student of ornament and decoration, will write a series of papers upon this subject, illustrated by his own sketches, under the title of "An Analysis, Historical and Constructive, of Decoration." Edmund M. Wheelwright, ex-secretary of the Boston Society of Architects, will contribute a paper on the development of church plans, a subject which he has lately made a deep

study of, and upon which he is to address the Boston Society. Professor Chandler, of the architectural firm of Cabot and Chandler, will write upon the library of an architectural student, its collection and use. John W. Root has promised a paper upon architectural designs from a fireproofing standpoint. Robert S. Peabody, of Peabody & Stearns, will also write, and others.

ARCHITECT W. L. B. JENNEY has designed a building which is the largest of its kind in the country. It will be located in Chicago at Polk street and the river. The proposed structure will cover about five and one-quarter acres, and being eight stories in height will contain over forty acres of floor space. There will also be a tower about 70 by 100 feet, fourteen stories high. It will be practically a steel building, fireproofed. The walls will probably be of stone. It is for the Hercules Company, and will cost upward of \$3,000,000. The purpose is to rent to manufacturing concerns of all classes. There are arrangements for several railway tracks through the interior to facilitate shipment.

#### Business Outlook.

OFFICE OF THE INLAND ARCHITECT, }  
CHICAGO, April 8, 1889. {

The month of March developed its full quota of business for architects, builders and manufacturers of building material. The volume of business fell back for iron makers. Lumber manufacturers and dealers have been successful in making contracts for a large amount of building work in nearly all of the larger cities, and the indications are as favorable as they have been at any time for several years past. There are a great many idle men in the country. Wages have been reduced in several industries, and in many from twenty-five to fifty per cent restriction of output is complained of. Producers of coal are not able to market their entire product and strikes are probable in two or three cities. Coke makers are exceptionally busy, and a great many ovens are being built. Lumber manufacturers are anticipating, with their usual hopefulness, a very active demand for all kinds of lumber on account of the extensive building operations which seem to be assured. In the New England states a creditable condition of business is reported from nearly all the leading industrial centers there. In the little cities and towns business is assuming shape, but the season is not old enough to make any positive statements. The banking interests throughout the East are feeling the influence of restricted exchange, but everything is pointing toward an expansion of business in being transacted. The manufacturers of nearly all kinds of building material expect to have a big season's work. Brick makers are particularly active. The demand for flooring, ceiling and boards is picking up. The demand for southern woods is perhaps as brisk as it could be expected at this season. The southern manufacturers expect to participate more largely in the distribution of lumber this year than they did last, and in that they will not be disappointed. The supply of building stone this year will be considerably in excess of last year. The slate quarries in eastern Pennsylvania are preparing for a very busy year, and the export trade in American slate is said to be rapidly gaining. In regard to wages and hours of labor it is not likely that the agitations will assume a very dangerous shape this year, as labor organizations are putting off any very great effort this year till 1890, when the more or less general movement will be made for the establishment of the eight-hour day. Reports from the far West are encouraging, and the activity there is the natural result of the railway construction in new sections of country during the past two or three years. Railroad building has not yet started on a large scale, and may not for two or three months. There are no clouds in the financial or business sky, but a great many producers feel that there is more need of a deference to market requirements than in years past, and in this they are certainly right. The fact has been often pointed out that present capacity has been so rapidly increased during past years, and there is even more danger that the even balance between distribution and production may be unbalanced than heretofore. Still, with trade balanced everywhere and a conservative feeling among business men of all kinds, there is no need of apprehending any break-up of the general activity and prosperity. At the same time it is well not to make any boast, and our advices from all sections of the country show that building activity will be of no mean proportions this year, and the building trades doubtless will have a greater season of activity than last year.

#### Synopsis of Building News.

**Baker City, Ore.**—Architects Kennedy, Ach & Co. have prepared plans for a \$30,000 hotel.

**Belleville, Kan.**—Architect G. W. Cochler has prepared plans for a jail and jailor's residence, to cost \$12,000.

**Chicago, Ill.**—The coming building season looks more promising than at any time during the past three years. It seems as though the building impulse, which was stopped so disastrously when under full headway two years ago by the general strikes, had begun again in earnest. It is certain that building material is low and competition between contractors close. This is not due so much to an oversupply and small demand as to the lien law of the state, which has bred a host of irresponsible contractors who present almost any figure, in order to secure contracts.

There are a great many large projects on foot, and in architects' offices can be seen designs of fifteen and even eighteen story buildings, to be erected in different portions of the down-town district. While these have not materialized sufficiently to become news, several such structures will most probably be commenced this year by Chicago architects both at home and in other western cities. Everything seems to point toward large building enterprises, of which the \$3,000,000 Hercules building mentioned elsewhere is but a sample.

Architects Adler & Sullivan: For E. B. Felsenthal, five-story factory building, 38 by 150 feet; pressed brick and stone; elevators, steam heat, etc.; cost \$38,000.

Architect A. M. F. Colton: For McCormick Theological Seminary, seventeen three-story dwellings; pressed brick and stone, hardwood interiors, steam heat, etc.; cost \$100,000.

Architect S. Linderoth: For K. H. Elstrom, three-story and basement flat building, 23 by 80 feet; pressed brick and brownstone; cost \$12,000. For J. H. Butler, three-story dwelling; pressed brick and buff stone; cost \$25,000.

Architects Burnham and Root are preparing plans for an addition to the Art Institute Building, to cost about \$50,000. Also, have plans for a three-story residence for E. H. Valentine; Treatment Colonial style; worm mottled brown Roman brick exterior; purple slate roof; large gables; roomy central hall with wide alcoves each side; interior elaborately finished; warm water heat, etc.; cost about \$25,000. Preparing plans for an eight-story office building, to be erected on southeast corner of Washington and Randolph streets. It will have a frontage



of 60 feet and a depth of 80 feet. The exterior will be of pressed brick and terra-cotta, while the interior will be elaborately finished with marble entrance and wainscot, elevator, steam heat and hardwood. Also preparing plans for a three-story building, 150 by 120 feet, to be erected at the stock yards for the *Drovers' Journal*; cost \$60,000. Also plans for a new front for Marshall Field's retail store. For R. De Koven, residence, in the Elizabethan style of architecture, with a wide, flat bay carried through the second and third stories. The top story will be surmounted by a tall timber and brick gable. The interior will be quite unusual in arrangement, and will be finished throughout in hardwoods. It will be four stories high, with a frontage of 25 feet and 70 feet deep.

Architect J. H. Wagner: Preparing plans for a seven-story office building, 75 by 80 feet; brick and stone; steel and iron interior; wire lathing; elevators; steam heat; hardwood finish, and modern conveniences; cost \$60,000.

Architect J. L. Silsbee: For A. Orr, residence at Evanston, in the old Colonial style. It will be two stories, attic and basement, with Gambrel roof; basement and chimneys of bowlders; interior hardwood, hot water heat, etc.

Architect L. G. Hallberg: For G. Brenker, two three-story and basement residences, 60 by 75 feet; buff Bedford stone fronts, mantels, hardwood finish, electric bells, speaking tubes, furnace heat, etc.; cost \$25,000. For J. L. Cochrane, eight two-story and basement houses at Edgewater, 24 by 50 feet each; cost about \$24,000. Taking bids on a three-story and basement residence for O. Paulson; stone front, hardwood finish; estimated cost \$15,000. A number of sketches under way.

Architect W. L. Carroll: For Mrs. Swanson, two-story and basement flat building, 24 by 62 feet; pressed brick, cutstone trimmings; cost \$6,000.

Architects Thiel & Lang: For H. Kromp, four-story store and flat buildings; pressed brick and stone; cost \$10,000.

Architects Griesser & Moritzer: For Sheridan & Baumgart, a distillery plant of eight buildings, with a frontage of 260 by 120 feet; brick, stone and iron; cost \$150,000.

Architect P. Hale: For Dr. Clark, addition to building; cost \$10,000. For Mr. Weil, three-story and cellar building, 49 by 60 feet; cost \$10,000. For A. Hoffmann, three-story store and flat building; front, Portage brown and Michigan greenstone; cost \$12,000.

Architect A. T. Boos: For Thomas McGuire, four-story store and flat building, 52 by 59 feet; pressed brick, with stone trimmings; cost \$13,000. For A. Weckler, boiler and machinery house; cost \$10,000. For L. Lutz, three-story flat building, 40 by 68 feet; cost \$12,000. For F. Schreiber, three-story and basement flat building, 22 by 72 feet; cost \$6,000.

Architects Charpie & Fry: For J. M. Allen, sixteen cottages; cost \$12,000. For C. M. Graves, eight cottages; cost \$6,400. For same party, three-story flat building, 50 by 72 feet; cost \$10,000. Preparing plans for a two-story flat building, to cost \$6,500.

Architect D. S. Pentecost: For F. Kaufmann, three-story flat building, 25 by 42 feet; pressed brick, and stone exterior; cost \$6,500. For Thomas G. Kearns, two two-story and cellar flat buildings, 25 by 63 feet; cost \$5,000. For I. Leverens, two three-story and cellar store buildings, 48 by 50 feet; cost \$10,000. For Marquette Club, addition to club house; cost \$12,000. For Leamy & Green, two two-story and basement flat buildings, 50 by 58 feet; buff and red brick, Michigan and buff Bedford stone; cost about \$9,500. For G. H. Culver, frame residence at Maplewood; cost about \$4,000.

Architect W. A. Otis: For C. W. Butterfield, six-story building; cost \$75,000. Architects Thomas & Rapp: For C. P. Thomas, restoration and five-story addition to warehouse. For same party, four-story block; cost \$30,000. For S. W. Hoffman block of four-story flats; cost \$50,000. For Mrs. C. P. Thomas, Queen Anne cottage; cost \$14,000. For H. Bogy, residence at Auburn Park; plans under way.

Architect W. W. Boyington: For H. N. Sayer, two-story residence, 28 by 48 feet; pressed brick and rock faced front; furnace heat; hardwood interior; cost \$10,000. For Charles Bonner, residence, at Rosalie Court, 27 by 49 feet; rock faced stone basement; first story, clapboard; second, shingle; hot water heat; plumbing open with nickel-plated fixtures; cast-iron bath; porcelain sinks, etc.; cost \$7,000. Preparing plans for a new hotel, to be built at Dubuque, Iowa, on the site of the Julian House, at the corner of Main and Second streets. It will be four or five stories high, 94 by 113 feet. It will contain about 100 rooms, with office and stores on the first floor. The first story will be of rock-faced stone, with rock-faced brick and terra-cotta above. It will contain elevators, steam heat and all the modern improvements; cost \$100,000. Also planning a building for the North-western Military Academy at Highland Park, to cost \$25,000. It will be three stories (cellar and attic) high, 48 by 135 feet, with a wing 40 feet in length. Pressed brick veneer for the first story and shingles above will complete the exterior. It will be used as a dormitory, and will contain parlors and sleeping rooms.

Architect W. W. Clay: For E. C. Day, three-story store and flat building, 32 by 100 feet; pressed brick and stone front; cost \$10,000. Preparing plans for a handsome flat building, to be known as the Devonshire, to be erected on Wabash avenue and Twenty-eighth street. It will be four stories high, divided into sixteen seven-room flats; first story, rock faced stone; other stories, pressed brick; cost about \$35,000.

Architect R. G. Pentecost: For J. H. Defrees, five three-story dwellings, 22 by 65 feet; Michigan green and buff brownstone fronts; slate roofs; hardwood finish; hot water heat, and all modern improvements; cost \$40,000. For J. S. Lawrence, five three-story dwellings; Milwaukee pressed brick; copper bays; modern conveniences; cost \$20,000. For J. E. Jennings, two-story residence, 20 by 67 feet; Michigan green and buff stone fronts; furnace heat; modern appliances; cost \$6,500. For G. E. Cave, two three-story apartment buildings, 47 by 69 feet; buff Bedford stone fronts, with porches; hardwood finish; furnace heat, etc.; cost \$15,000.

Architect M. L. Beers: Planning a new schoolhouse for District No. 1, Hyde Park. It will be in the Italian style of architecture, with high basement, two stories high, 86 by 87 feet, and contain eight rooms, four on each floor. The basement will be used for recreation and fuel rooms; the exterior will be of red pressed brick, with cutstone and galvanized iron trimmings; the interior will be finished in clear and Georgia pine; cost about \$25,000.

Architect G. Vigeant: For Hyde Park Presbyterian Society, church building, Gothic style of architecture; rough stone walls; slate roof; stained glass windows; cost \$35,000.

Architect Sven Linderoth: Plans under way for a three-story and basement flat building, 22 by 100 feet, to cost \$12,000.

Architect A. F. Wolf: For Joseph Ohmatel, three-story block of stores and flats, 24 by 70 feet; cost \$8,000.

Architect J. A. Bongard: For L. Hanig, three-story and basement flat building, 46 by 64 feet; St. Louis pressed brick; Bedford stone trimmings; cost \$10,000.

Architect W. H. Drake: For A. R. Fay, two-story and basement residence, 23 by 55 feet; cost \$7,000.

Architect J. H. Schnoor: For Chas. Demier, three-story flat building, 22 by 67 feet; cost \$8,000. For John Haack, flat building, 22 by 74 feet; pressed brick; stone trimmings; cost \$6,000.

Architect W. A. Arnold has prepared plans for two residences at Evanston; cost \$4,500 and \$6,500; also three residences at Oak Park; cost \$4,500, \$4,800 and \$3,000.

Architects Wilson, Marble & Lamson: For W. H. Pruyn, three-story and basement residence, 20 by 70 feet; stone front; bays and steam heat; cost \$12,000. For J. W. Hessey, two-story and basement flat building, 27 by 56 feet; cost \$10,000. For W. H. Moore, three-story and basement residence, 25 by 96 feet; stone front; tile roof; hardwood and marble interior finish; cost \$25,000. For Gus Newman, residence at Lake View; cost \$5,000; For G. Grover, building; cost \$3,000. Three-story and basement flat building on Thirty-second street; cost \$20,000. For Judge Anthony, remodeling residence to flat building; cost \$7,000. Four-story flat building for same party, 20 by 76 feet; brick and stone; cost \$10,000.

Architect Jul de Horvath (Englewood): For the Howard Club, two-story club house, 50 by 90 feet; cost \$15,000. For B. Zimmermann, four-story hotel and theater building, 125 by 128 feet; pressed brick, red sandstone; terra-cotta; slate; cost \$75,000; plans under way. For Town of Lake, two-story police station; pressed brick and stone; steam heat; cost \$25,000; plans in hand. For C. Zeiss, frame residence, Morgan Park; cost \$7,000. For T. L. Johnston, three-story residence, Argyle Park; cost \$6,000. For C. C. Coffin, residence, Oak Park; cost \$3,000. For S. D. Davenport, residence, same locality; cost \$3,500. For Charles

Kotzanberg, residence, Garfield boulevard; cost \$6,000. For G. Johnson, flat and store building; cost \$7,000. For G. W. Merchant, residence, Auburn Park; cost \$2,500. For himself, residence, Auburn Park; cost \$12,000.

Architect F. Wolf: For Joseph Schlitz Brewing Co., Milwaukee, six-story refrigerating building, 70 by 170 feet; Milwaukee pressed brick, stone, iron; slate roof; cost \$70,000. For Paul Pohl, Lake View, four-story brewery building, 25 by 100 feet; pressed and common brick; cost of plant, \$15,000.

Architect W. N. Walter: For Mr. Williams, three-story residence, 65 by 110 feet; design, Romanesque treatment; features of exterior, steep roof, broad gables, broad porch, low arched entrance; interior, elaborately finished in domestic hardwoods.

Architect W. L. B. Jenney: For Union League Club, five-story and basement addition to the Club house. For Gen. W. C. Newberry, three-story residence, 30 by 60 feet; Roman brick, trimmed with red brick and terra-cotta; recessed entrance; steam and hot water heat, and approved modern conveniences.

Architect C. F. Hermann: For Frederick Kirchoff, six-story building, 40 by 92 feet; pressed brick and buff Bedford stone; steam heat; elevators, etc.; cost \$30,000. For George Schert, three-story and attic store and flat building, 48 by 47 feet; pressed brick and stone; cost \$18,000. For Chris. Neissel, three-story store and flat building, 25 by 80 feet; cost \$18,000.

Architect F. B. Townsend: For W. M. Hoyt, three-story apartment house, 50 by 100 feet; pressed brick and stone; hardwood finish; tile; plate and stained glass, etc.; cost \$20,000.

Architects I. K. & A. B. Pond, preparing plans for Mrs. John C. Coonley, modern first-class residence, to cost about \$15,000.

Architects H. Rehboldt & Co.: For C. Kirchoff, three-story and cellar store and flat building, 20 by 65 feet; cost \$7,000. For John Hanczyk, two-story and basement flat building, 21 by 68 feet; cost \$5,000.

Architect E. R. Krouse: Plans for a five-story apartment building; pressed brick, stone and terra-cotta; elaborate interior; cost \$25,000.

Architect Julius Huber: For J. E. Richards, three-story residence, 30 by 76 feet; granite front; slate roof; interior hardwood finish and latest improvements; cost \$25,000.

Architects Ruehle and Gommlich: For N. Maurer, four-story store building, 26 by 80 feet; cost \$10,000.

Architect J. S. Wollacott: For A. J. Schloesser, two two-story and basement residences at Lake View; cost \$8,000. Five-story hotel building to be built on North Clark street; pressed brick, stone and iron interior; hardwood finish and modern appliances; cost \$50,000.

Architects Lutken & Thirslew: For James Fleming, block of four-story flats, 43 by 50 feet; cost \$9,000.

Architect S. Linderoth: For K. H. Elmstrom, three-story and basement flat building, 23 by 89 feet; pressed brick and brownstone; cost \$12,000.

Architect S. M. Randolph: For Mrs. Mary O'Brien, alterations and additions to building on Fifty-third street; cost \$10,000.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall.

No clouds are discernible in the skies above the business world, but it is natural to expect, at this time of the year, a little dust to be flying from brick piles and lime carts. Contracts, in other words, are going forward in a satisfactory manner. Our armory is about completed, and furnishers would do well if they would write to Samuel Hannaford & Sons for particulars as to interior work.

The *Penny Post* has undertaken a good work in presenting to its readers a series of articles on "Workingmen's Homes," illustrated by plans furnished by the Cincinnati Architectural Club. The houses will range in price from \$400 to \$2,500 each. It is good practice for "the boys."

We are glad to welcome home again an architect who has many friends here, after a sojourn abroad of eight months devoted to study and travel. I refer to Mr. Wm. Martin Aiken.

Edwin Anderson is also well employed. He has prepared the following plans, and they all reflect credit on him: For B. Joseph & Bro., Williamstown, Ky., a pressed brick store building, 33 by 90 feet. Above the stores will be a large hall. For Joseph Earnshaw, a row of ten houses, each house containing from six to ten rooms; frame, with slate roof. For the Presbyterian church at Connersville, Ind., additions of brick, consisting of Sabbath school and society rooms, will be built. Also for D. Carneal, Esq., remodeling store building on the corner of Third and Main streets.

Thomas Emery's Sons will erect a large stone flat building, seven stories high, fitted with all the modern improvements, elevators, etc. J. B. Steinkamp, city, is the architect; cost \$50,000.

S. S. Godley has prepared plans for Mr. N. W. Thomas, Carthage, Ohio, for a frame house, two-and-a-half stories high, stained glass, electric work; slate roof, etc.; cost \$4,500. Also plans for a frame hotel at Asheville, N. C.; two stories high, shingle roof, wood mantels, laundry fixtures, etc.; cost \$10,000. Also for the Consolidated R. R. Co., a frame stable, 60 by 200 feet, with tin roof; cost \$8,000.

Henry E. Siter reports, among others, the following plans in his office:

Alterations in residence of Dr. W. W. Seely, bay window, etc.; cost \$1,000.

For the Order of Elks, additions and alterations for their club house, 200 Vine street. The rooms will be fitted up for lodge purposes, and the alterations will cost about \$3,000. For the Cincinnati Typefoundry, a brick and iron building, six stories high, 60 by 60 feet, for foundry purposes, with belt elevators, etc.; cost \$30,000. Mr. Siter has his time well employed, the success achieved in one job seeming to always advertise and bring him work.

Louis Pillet reports as follows: A residence and store for J. L. Cochran, Morris and Gilbert avenue, city, three stories high, slate roof, slate mantels, brick and iron front, etc.; cost \$4,000. Also for A. Scheickel, a small brick residence, to cost \$1,000; pine finish, tin roof, etc. Also for H. G. Andris, Clifton, Ohio, a frame residence, to cost \$2,000. This is more properly a remodeling job. The house will have slate roof, stained glass, pine finish, electric bells, etc.

Among the plans prepared by Messrs. Samuel Hannaford & Sons is one for a large store building for Mr. William Miller. It will be of stone and iron, six stories high; have elevators, etc. When completed, it will be quite an addition to the stores of the city; probable cost \$2,500 to \$3,000.

S. E. Des Jardins reports the following on the boards, namely: For J. L. Keck, Esq., Kearney, Nebraska, a pressed brick residence of ten rooms, two and one-half stories high, terra-cotta, slate-roof tiling, laundry fixtures, hardwood finish, etc.; cost \$10,000. Also, for J. W. Bales, Esq., Richmond, Kentucky, a frame house of nine rooms, shingle roof, pine finish, plumbing, laundry, etc.; cost \$4,500. Busy on sketches.

Crapsey & Brown report as follows: Residence for V. Gilchrist, Hamilton, Ohio; a pressed brick residence of twelve rooms, slate roof, stained glass, hardwood finish, billiard tables, etc.; cost \$7,000. This firm has also drawn plans, which have been accepted, for a most beautiful and picturesque depot at Lima, Ohio, for the C. H. & D. R. R. Contracts not let.

W. W. Franklin reports: For Charles W. Baker, Esq., Pike's Building, city, a stone residence of twelve rooms; stained glass, tile roof, hardwood finish, laundry fixtures, etc.; cost \$1,000. This house is planned in Mr. Franklin's best style, which speaks volumes for the house.

J. H. Boll reports: S. P. Nelson will build on Walnut Hills; two and one-half stories; ten rooms; brick, stone trimmings, furnace heat, stained glass, hardwood finish, slate roof, inside blinds, etc.; cost \$4,000. Opera House, Ludlow, Kentucky, for Odd Fellows' Lodge; three stories, brick, stone trimmings, steam heat, stained glass, hardwood finish, chairs, slate roof, terra-cotta; cost \$20,000.

Emil G. Rueckert reports: For Peter Widman, frame house, twelve rooms, two and one-half stories, slate roof, pine finish, laundry fixtures, etc.; cost \$6,000. G. J. Koch, brick residence, two and one-half stories, twelve rooms, hardwood finish, tile floors, electric bells, laundry fixtures, inside blinds, etc.; cost \$7,500. For Jacob Magley, builders' exchange, city, a brick and frame residence, two and one-half stories high, twelve rooms, pine finish, slate roof; cost \$5,000.

**Denver, Col.**—The Turnverein Society have accepted plans and will erect a three-story hall building, to cost \$50,000.

**Detroit, Mich.**—Reported by C. A. Preston. The outlook is good and the indications are there will be a larger number of buildings erected this year than for any recent previous year. The following is the showing for the month of March:

For Jeremiah Connor, two-story frame dwelling, 32 by 55 feet; cost \$4,500. For Polish Congregational Society, school building, 55 by 80 feet; brick, with stone trimmings; slate roof; cost \$15,000. For A. Corheille, seven two-story



frame dwellings; cost \$8,600. For W. H. McClean, two-story dwelling, 31 by 50 feet; brick and stone; slate roof; cost \$5,000. For Mrs. E. C. Preston, two-story kindergarten school building, 48 by 75 feet; brick and stone; slate and gravel roof; cost \$8,000. For M. W. Scovell, two-story dwelling, 28 by 53 feet; brick and stone; slate roof; cost \$4,500. For J. F. Weber, block of three two-story stores, 63 by 60 feet; brick and stone; slate roof; cost \$5,000. For city of Detroit, four-story police station, 92 by 80 feet; brick and stone; slate roof; cost \$60,000. For A. M. Steele, block of five three-story stores, 100 by 60 feet; brick and stone; gravel roof; cost \$20,000. For the Bagley estate, five-story store building, 70 by 130 feet; brick and stone; gravel roof; cost \$25,000. For Severs & Erdman, four-story factory, 53 by 80 feet; brick and stone; gravel roof; cost \$12,000. For Mrs. Geo. H. Hammond, three-story dwelling, 22 by 63 feet; brick and stone; slate roof; cost \$7,000. For James McMillan, three-story store and dwelling, 22 by 63 feet; brick and stone; slate and tin roof; cost \$30,000. For W. S. Booth, two-story dwelling, 40 by 63 feet; brick and stone; slate roof; cost \$16,000. For Michigan Store Co., three-story factory building, 36 by 22 feet; brick and stone; gravel roof; cost \$4,800. For C. J. Lowrie, double two-story dwelling, 44 by 68 feet; brick and stone; gravel roof; cost \$6,000. For A. Hunt, double two-story barn, 33 by 65 feet; brick and stone; asbestos and shingle roof; cost \$7,000. For G. H. Whitaker, two-story dwelling, 32 by 42 feet; brick and stone; slate roof; cost \$5,000. For Mrs. Geo. H. Hammond, ten-story office building, 79 by 136 feet; brick, stone and iron; asphalt roof; cost \$350,000. For J. Bech & Sons, three-story mill, 50 by 62 feet; cost \$6,000. For D. Lane, double two-story dwelling, 30 by 42 feet; brick and stone; slate roof; cost \$4,000. For J. B. Wagner, three three-story dwellings, 56 by 72 feet; brick and stone; slate roof; cost \$12,000.

Two hundred and eighty permits for new buildings and 83 for alterations; aggregating, respectively, \$812,835 and \$34,240, were granted in March, amounting to over \$200,000 more than any previous month in the history of the permit office.

**Joliet, Ill.**—Architect Julian Barnes has prepared the following plans: For Christian Sand, two-story and basement flat building, 65 by 100 feet; cost \$15,000. For G. H. Munroe, three-story store and hotel building, 53 by 120 feet; cost \$15,000. For R. Morrison, two-story and basement flat and store building, 22 by 66 feet; cost \$3,500. For J. W. Gray, two-story and basement flat and store building, 44 by 66 feet; cost \$5,000. For H. H. Stossen, two-story and basement frame residence; cost \$4,000. For Julian Barnes, two-story and basement residence; cost \$4,000.

**Kansas City, Mo.**—Architect G. P. Putnam has prepared plans for a large business block, to be erected on Main street. Thomas Corrigan will erect a large five-story block, 100 by 258 feet, to cost \$250,000. J. W. Merrill will also erect a five-story business block. A party of Boston capitalists will erect a nine-story business and office building, on the corner of Canal and Central streets, to cost \$400,000. The Builders' and Traders' Exchange will have plans prepared for a five-story building, of fireproof construction, to be erected the coming season; the proposed cost is about \$25,000.

**Little Rock, Ark.**—Architect F. B. Rickon has prepared plans: For B. Thallheimer, brick stable, 10 by 140 feet; cost \$5,000. For John Blackwood, frame residence; cost \$2,500.

Architects Klapp & Kusenon: For T. B. Martin, three-story brick store, 50 by 100 feet; cost \$12,000.

**Louisville, Ky.**—The outlook is very promising for an active season. All of the architects have considerable positive and projected work in hand. The following comprises a partial report of the status:

Architect Charles D. Meyer: For William Springer, store building, to be erected on Market street, near Fourth; cost \$20,000. Church building for the German Lutheran Society; cost \$45,000.

Architects McDonald Bros.: Hotel at Cumberland Gap; cost \$35,000. For Southern Warehouse Co., warerooms, 170 by 298 feet; cost \$65,000. For J. G. Barrett, three stores; cost \$40,000. For Courier-Journal Co., five-story printing office building; cost \$45,000. Potter College, Bowling Green; cost \$45,000. For Louisville Athletic Club, gymnasium building; cost \$20,000. Jail at Williams-town; cost \$18,000. For Mrs. James Speed, residence; cost \$7,000. For F. B.

Stirman, Owensburg, Kentucky, residence; cost \$6,000. For Captain Gross, Gro-verport, Kentucky, residence; cost \$4,000.

Architects Curtan & Roberts: For Adams Express Company, office building; cost \$40,000. For E. W. C. Humphrey, residence; cost \$11,500. For Mrs. Enders, residence; cost \$7,000.

Architect H. Wolters is preparing plans for fifty railroad station buildings for the Central Georgia Railroad Company.

**Milwaukee, Wis.**—Architect J. Douglas has prepared plans for a \$12,000 residence for A. W. Brookings. E. H. Abbott has taken out a permit for ten dwellings, to cost \$30,000.

**Pittsburgh, Pa.**—The outlook is good and encouraging.

Architects McBride & Gray, have completed plans for four brick dwellings, two stories and mansard, to be erected by F. A. Pollock; seven two-story brick dwellings for H. F. McGrady; two three-story brick dwellings for Lowry & Flynn; two-story brick for W. F. Dutton.

Architect F. J. Osterling, is preparing plans for a new building for the Marine bank, to be erected on the site now occupied by the present building; is also engaged upon plans for a new Presbyterian church at Canonsburg; plans for an opera house and bank at Kittanning, Pa.

Architect H. Moeser, has completed the plans for the St. Augustinus Monastery. The front elevation shows a large, commodious and substantial building, three stories high. The building will be 149½ feet in length, built of brick with stone courses and slate roof; edifice will be inclosed with a wall.

Architect W. Hodgdon, an apartment house four stories high (including a mansard), four rooms on each floor, with bathroom and all the appointments essential to the comfort of occupants of each floor; elevator and stairway; in the cellar, a laundry; cost \$10,000. Has also prepared plans for a two-story brick dwelling of six rooms, for Samuel McKee, of Wilkinsburg; cost about \$3,000.

**Seattle, W. T.**—Architects Bird & Dornbush have prepared plans for a \$19,000 Odd Fellows' hall. Also a four-story brick building for A. Brown; to cost \$45,000, and a four-story business building for Mr. Holyoke; to cost \$35,000.

**Sioux City, Ia.**—Architect E. W. Loft has prepared plans for a syndicate of a six-story business and office building, to cost \$50,000.

Architects Brown & Sons are preparing plans for a church building for the Swedish Society; brick, with stone trimmings; stained glass, etc.; cost \$20,000.

J. C. French contemplates erecting a fine bank and office building; brick and stone; fireproof construction, and all modern conveniences.

**Sioux Falls, Dak.**—Architect W. L. Dow is preparing plans for a \$20,000 opera house, to be constructed at Pipestone, Dakota.

**St. Paul, Minn.**—Among many buildings which Wilcox & Johnston have in hand are Bethany Congregational Church, West St. Paul; frame, 38 by 60 feet; cost about \$5,000. Ascension Episcopal Church, of stone, with a square tower, early English architecture, West St. Paul. A block of three-story stone houses for Mrs. Steadman, New York style, on Portland avenue, near Dale. A block of stone houses for Colonel Farrar, of the same style, on Summit avenue, near Dale. A residence for Mr. Beardsly, on Fairmount avenue, near St. Albans; cost \$6,000. A double brick and stone house on Nelson avenue, near Josette street, for Mr. T. Fitzpatrick; cost \$25,000. A club house and four stores of stone and brick on the northwest corner of Wabasha and Ninth streets for Mr. Fitzpatrick; cost \$50,000. A \$7,000 residence for William Rhodes, on Lincoln avenue, between Oakland and Dale. Complete alterations of Mr. John A. Berkey's residence, next to the Kittson place, with stable; cost \$20,000. A residence for W. N. Howard, in Summit Park; cost \$10,000. A \$10,000 residence for Fred G. Ingersoll, on Grand avenue, near Oakland. A \$5,000 residence for C. M. Power, on Goodrich avenue, near Grotto. A \$25,000 brick and stone residence for C. T. Miller, facing Central Park on the east, and a \$7,000 cottage for W. I. White on Goodrich avenue and Grotto, and Trinity chapel, in St. Paul Park, \$1,000. Among the large buildings in St. Paul under charge of these gentlemen are the \$100,000 pavilions of the city hospital and St. Luke's Hospital, on Oak street, which will be commenced immediately, and will cost \$80,000.

Contracts have been let for fifty buildings at Merriam Park.

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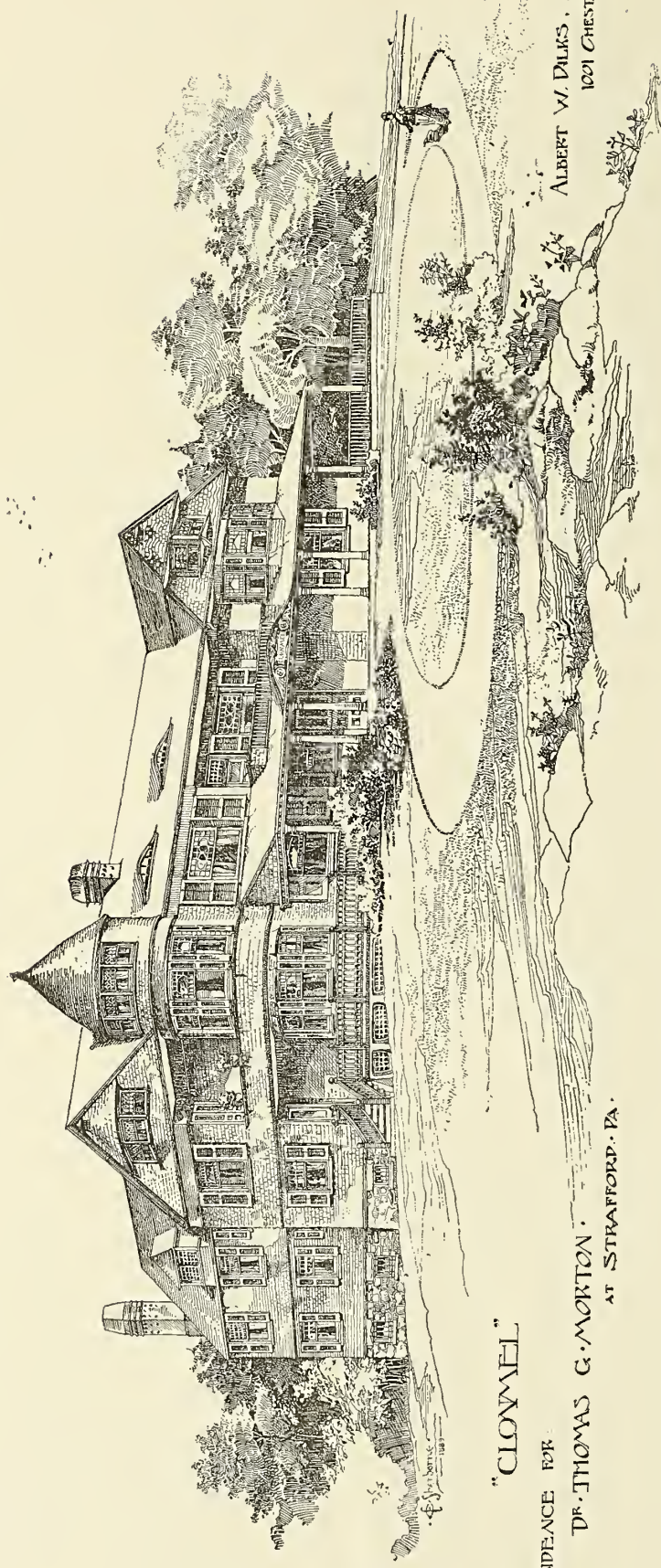
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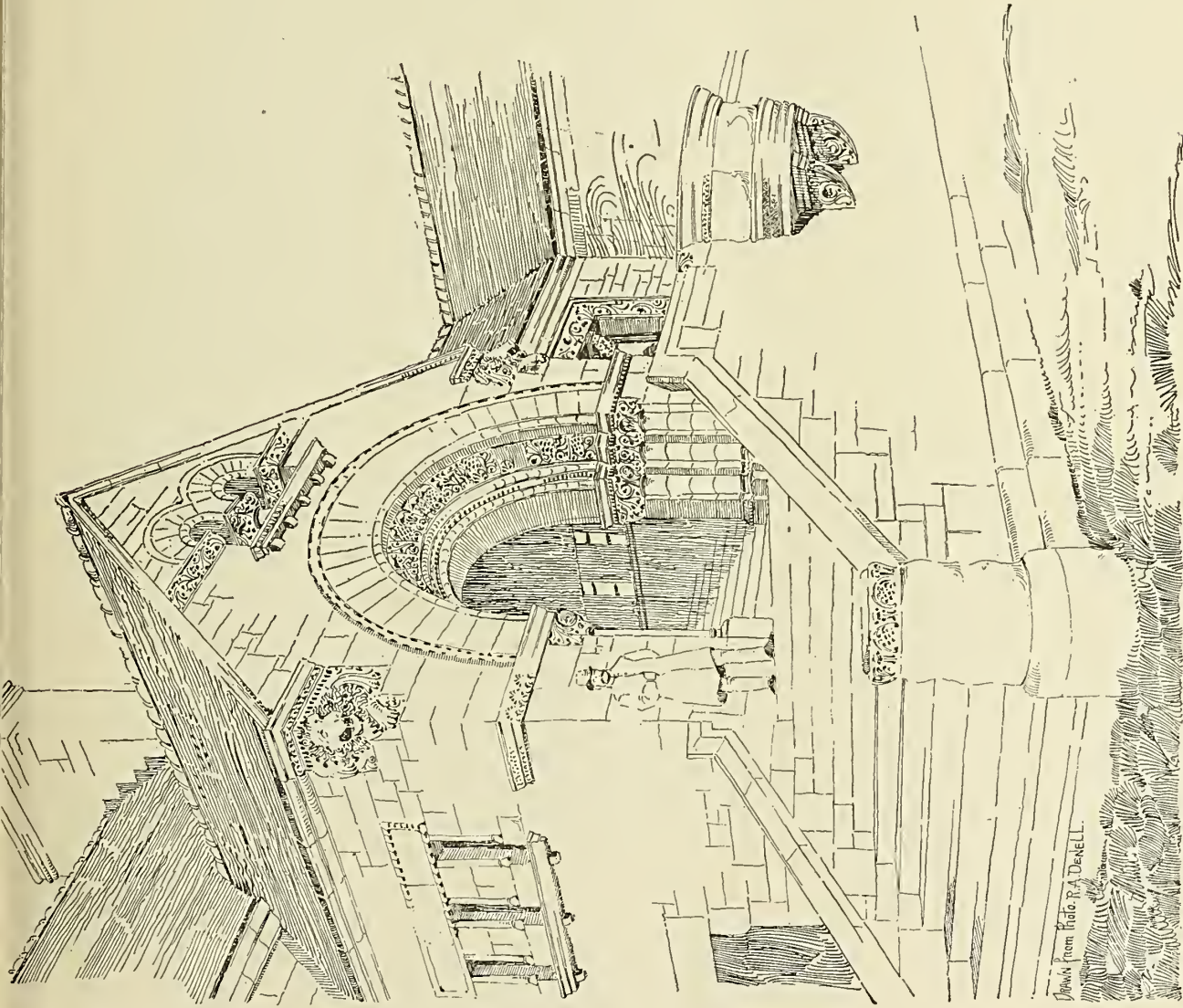
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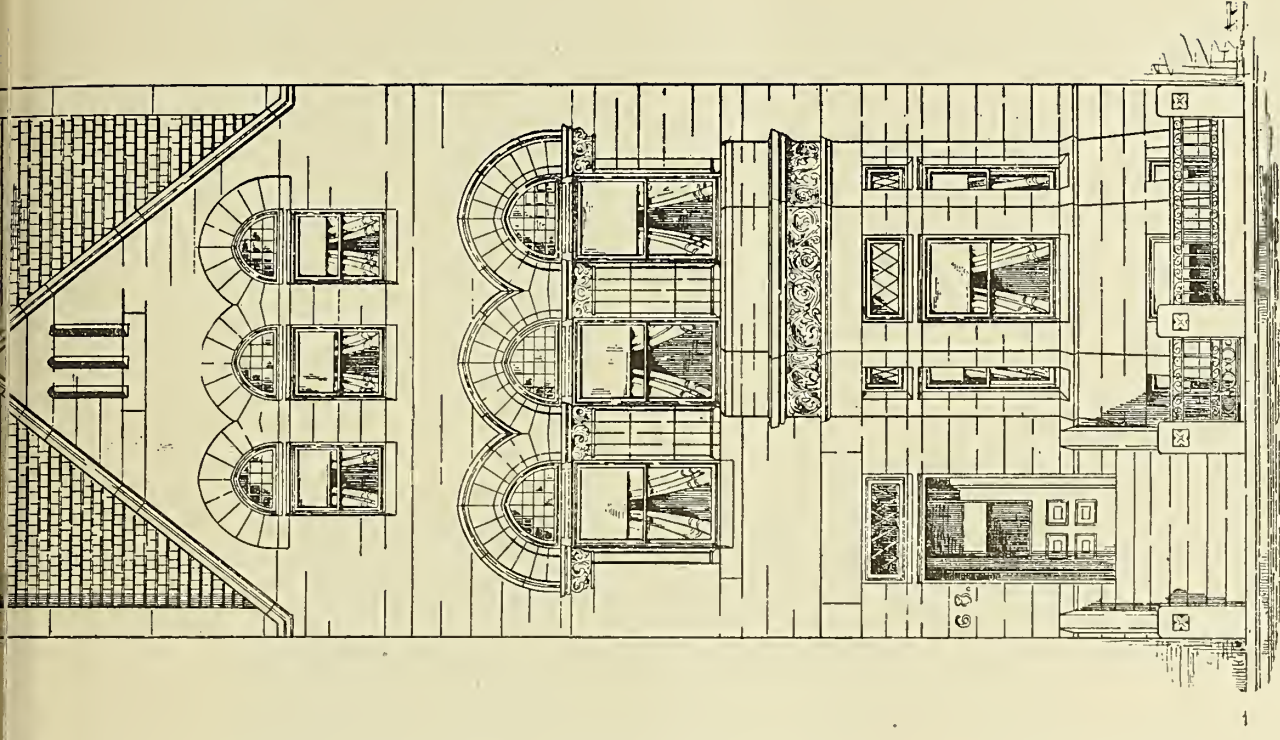
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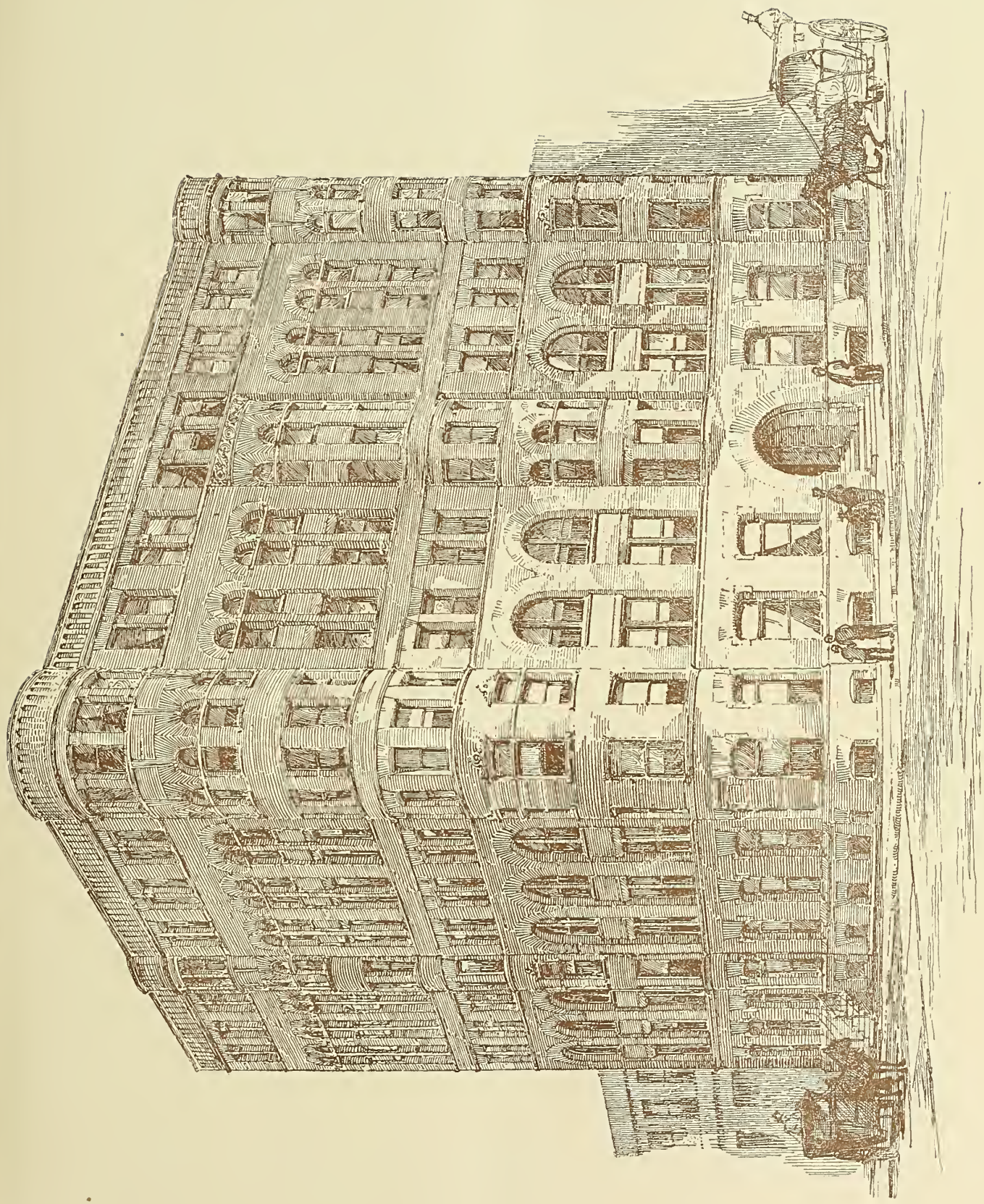
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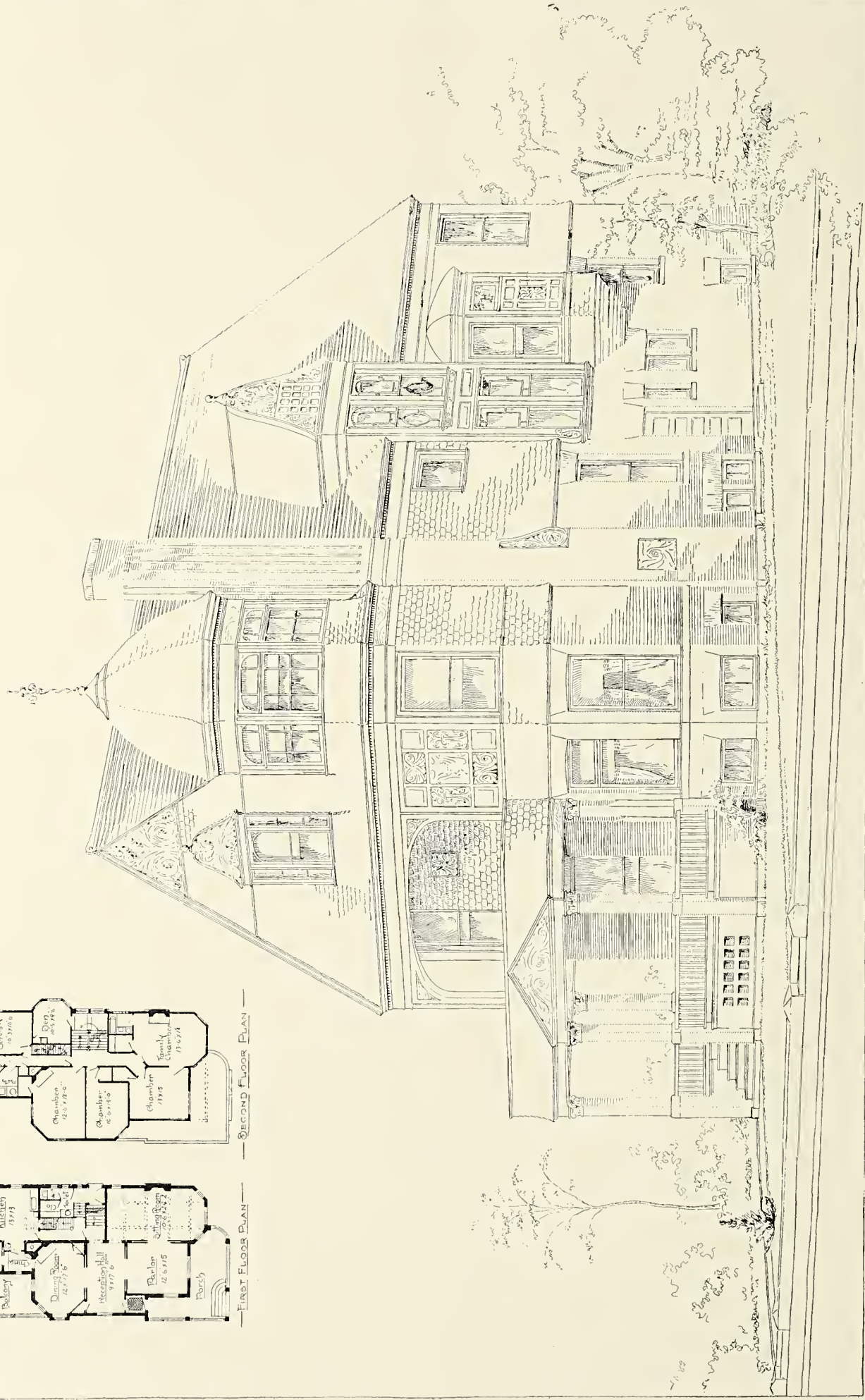
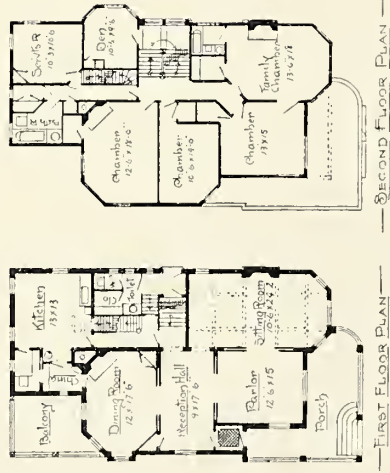












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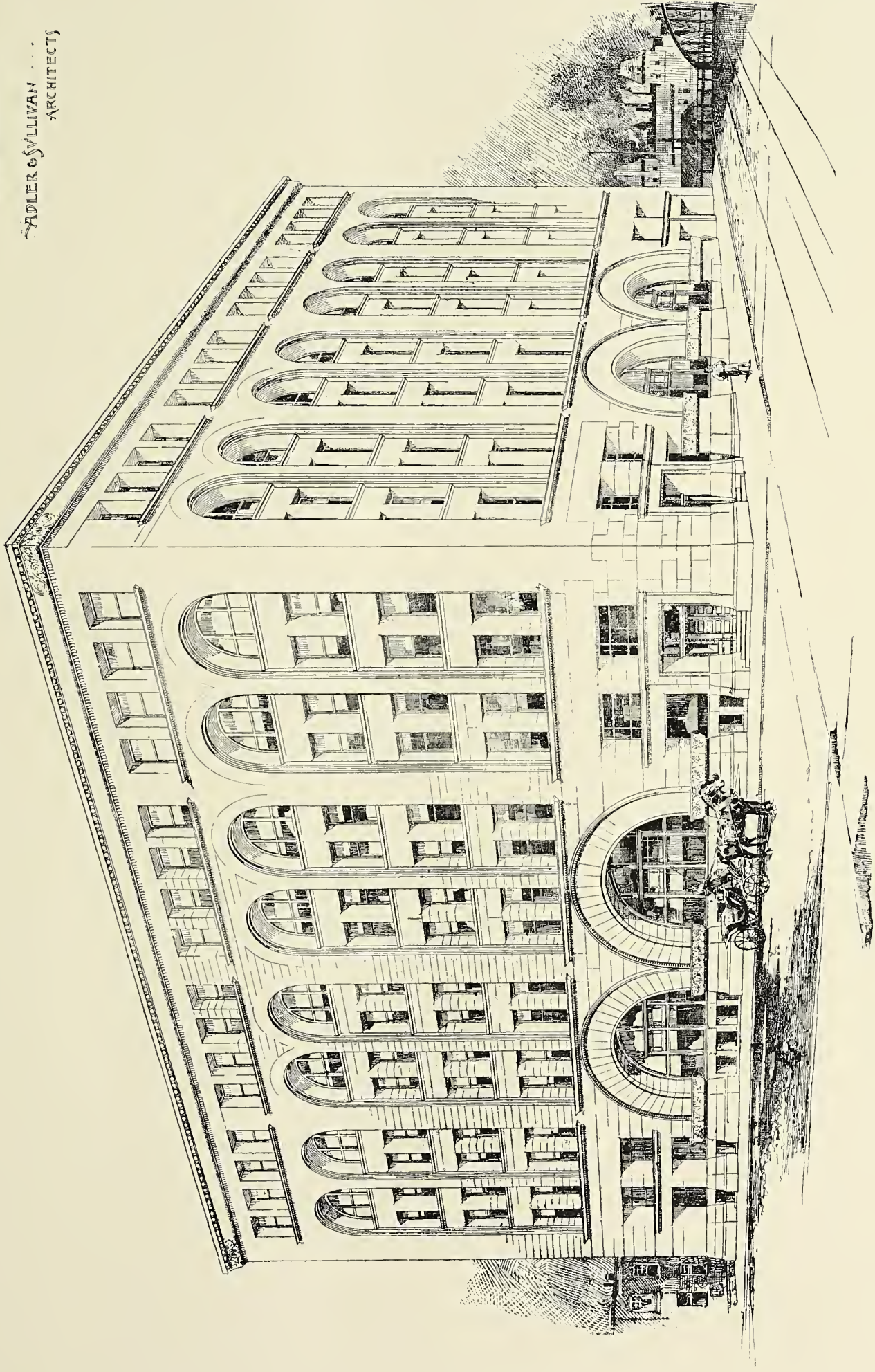
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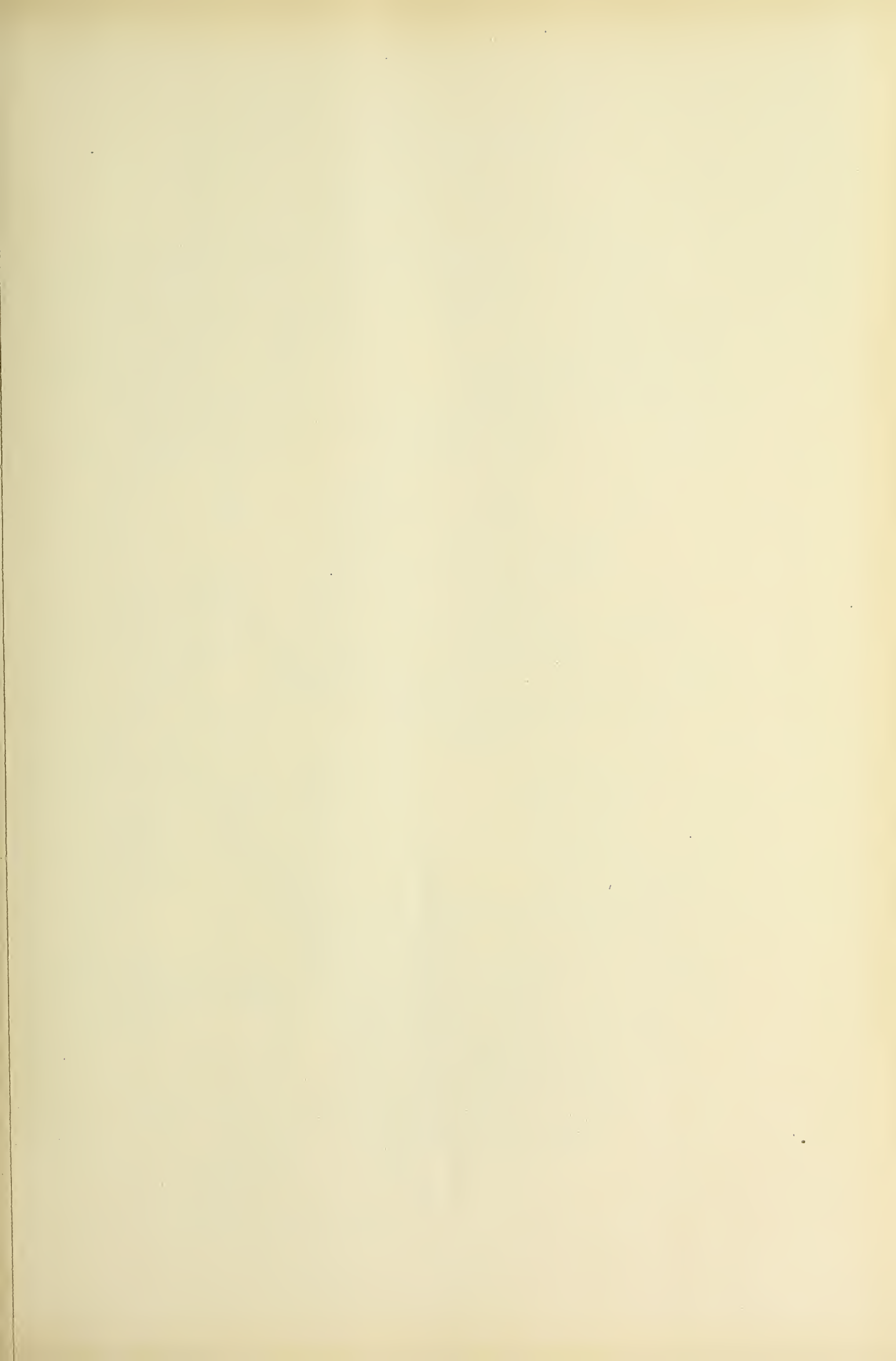
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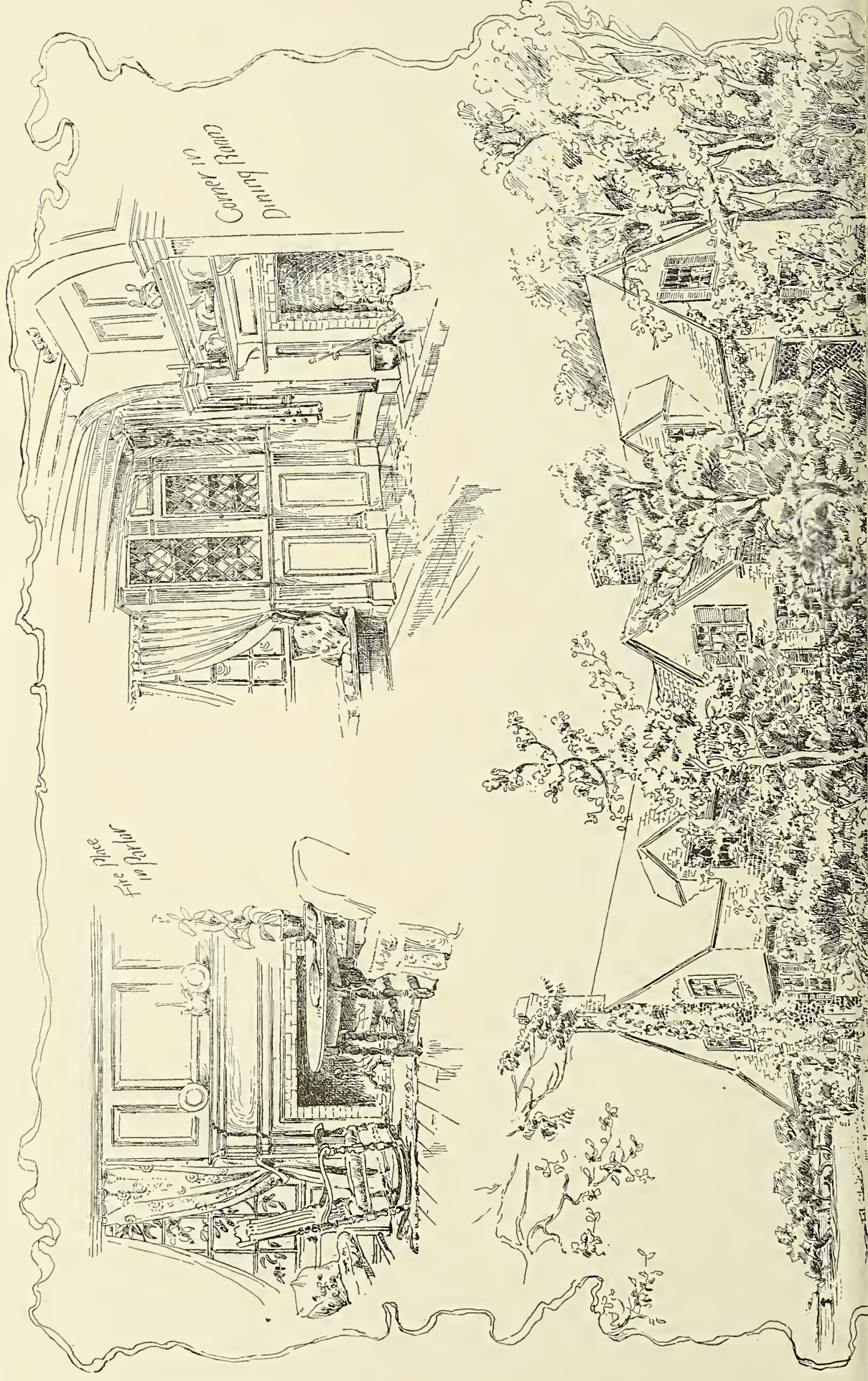














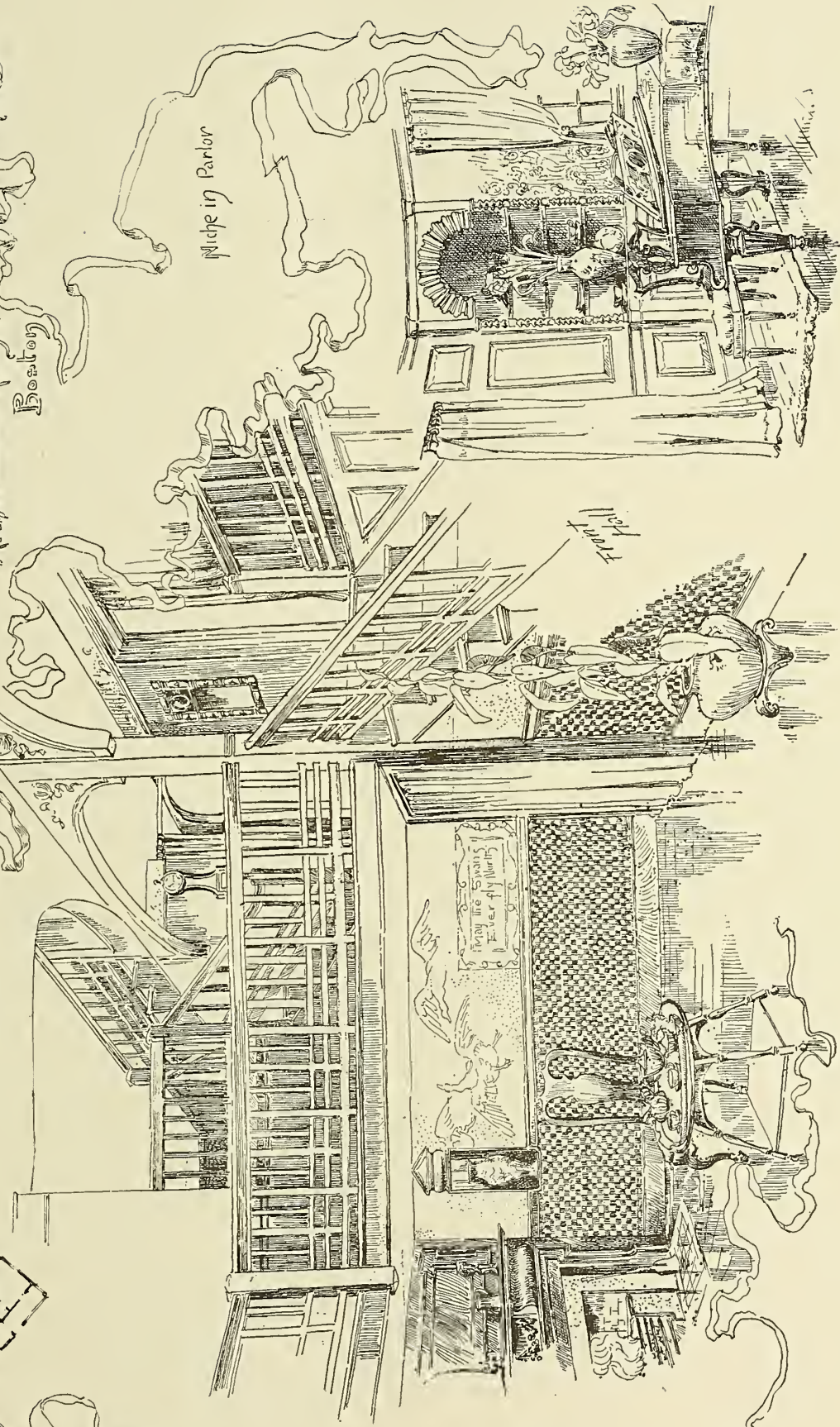
Pen Sketches of "Red Cables" at  
 Phillips Beach, Swampscott,  
 Arthur Little Archt., by G.P. Ferry & Co.  
 Boston



Level A: 8'0"  
 Below B.

Niche in Parlor

Front

















# THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIII.

MAY, 1889.

No. 5

MAY, 1889.

## THE INLAND ARCHITECT AND NEWS RECORD.

*A Monthly Journal (with an Intermediate News Number) Devoted to*  
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**CONSTRUCTION, DECORATION AND FURNISHING**  
**IN THE WEST.**

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A. C. Dallas, . . . . .	Salt Lake City.	
E. W. Wells, . . . . .	Wheeling, W. Va.	
T. H. Morgan, . . . . .	Atlanta, Ga.	
COMMITTEE ON STATISTICS OF COMPETITIONS:		
C. E. Illsley, chairman, . . . . .	St. Louis, Mo.	
J. W. Yost, . . . . .	Columbus, Ohio.	
A. Van Brunt, . . . . .	Kansas City, Mo.	
S. M. Randolph, . . . . .	Chicago, Ill.	
J. H. Pierce, . . . . .	Elmira, N. Y.	
COMMITTEE TO COLLECT LEGAL DECISIONS RELATING TO BUILDING INTERESTS:		
Chas. C. Hellmers, . . . . .	St. Louis, Mo.	

The Inland Architect at the Paris Exposition. Our representative at the Paris Exposition writes, under date of April 18, that "few of the goods are unpacked, and the catalogues are not yet published. Many details of arrangement of groups and classes will not be completed until June 1." Visitors to the Exposition will find THE INLAND ARCHITECT on file in Group II, United States Section. The Exposition was formally opened by President Carnot on May 6. All the principal nations are represented except Germany, and the exhibitors number about thirty thousand. While most of the departments are incomplete, the American department is farthest behind. The Exhibition buildings cover about 3,000,000 square feet of ground, and the architectural and decorative features are said to surpass those of any structure ever erected for a similar purpose.

A Prospect of Formation of Many New Exchanges. At the urgent invitation of builders throughout different cities of the country asking for help and direction in the proper formation and management of local exchanges, Secretary Sayward, of the National Association of Builders, will devote a large part of the summer in complying with these requests. Since the annual convention of the National Association at Philadelphia, there has been a growing interest manifested by builders in many cities where exchanges have not previously existed, and when the next convention meets at St. Paul, in February, 1890, the number of prosperous exchanges will be largely increased.

A Social Club for New York Builders. The long talked of Building Trades' Club of New York City has been organized and will serve in purpose and conduct as a model for builders in other cities. The object, as outlined, is a social club to foster friendly relations between builders and to increase social acquaintance. The officers elected are: President, Marc Eidlitz; first vice-president, John J. Tucker; treasurer, Samuel I. Acken; secretary, H. W. Redfield; trustees, Charles A. Cowen, Henry A. Maurer, A. S. Dickinson, William H. J. Hurst, James B. Mulry, Louis Weber, John J. Roberts, Nathan Peck and Charles Andruss. It is probable that the annual convention of the National Association of Builders in 1890 will be held in New York City, and this club will actively prepare for the reception and entertainment of the delegates. Each city might with profit have such a club, but a local exchange is a good club in itself, and should fill all general requirements.

Proposed Convention of Representative Art Societies. For some time past the project of an art congress or a convention of fine art societies has been agitated, led by Mr. Arthur B. Turnure, editor of the *Art Age* of New York. As far as preliminaries go the movement has been successful, and enlisted the sympathies as well as the coöperation of the leading art society people in the principal cities of the United States. That it is time art matters in this country took definite shape no one will for a moment doubt, and that this project is probably the best that can be devised to lead to the necessary concentration, no one will deny. There is, however, much to be done even in procuring from this initial movement that impetus that will make art in this country national, where, heretofore, it has



been merely local. As far as we can see, and our main information comes through the columns of the *Art Age*, the movement in New York, Cincinnati and Chicago is supported and urged on by art patrons rather than by the artists themselves. In part this may be proper, and even necessary. In New York City artists have the recognition and support of the people, and sustain an equality in social relations. There, too, they have the encouragement of such men as Mr. Henry G. Marquand and Mr. Richard M. Hunt, to whom the artists and the cause of art in this country owe a debt, which, in its present and future value is beyond all computation. At a recent meeting, which, through the kindness of Mr. Marquand, was held at his residence, attended by representatives of the leading art societies, a committee on organization for New York City was appointed. This committee consists of Messrs. T. B. Clark, chairman of the New York Art Club; Arthur B. Turnure; Eastman Johnson, chairman Art Committee, Union League Club; Joseph Lauber, secretary Salmagundi Club; William H. Russell; and J. G. Brown, president of the American Water-color Society. These gentlemen make a strong committee and represent strong societies, but it would be refreshing to see the name of "John Smith, the artist," in the list. In Cincinnati the matter is in the hands of the active young men of the Architectural Club.

**Why an Art Convention Would Benefit Art in Chicago.** In Chicago the situation is, perhaps, less in the hands of the artists themselves than elsewhere. The Art Institute has for its president a gentleman of culture and of business ability, and who has the confidence of the artists, who hope that through him it will some time emerge from its position as a business concern into that of the representative of artists and art. The Chicago Society of Artists is an association of artists, and though its influence is not to be compared with that of the Art Institute, its membership represents art in its true sense. The change that came over the commercial growth of this country with the close of the war was so rapid that art was lost sight of; in Chicago, in the rebuilding after the great fire, it was ignored. As it is proposed to hold this congress in Chicago it may have the effect of elevating art to where it was during the life of the old Academy of Design, and place Chicago artists again upon the plane from which they have been deposed by those, who, without true art culture, but with an ambition to shine as art connoisseurs, gave more value to a badly painted sketch from a goose pasture in Brittany than the grandest American battle piece or painting of a Rocky Mountain peak. If the proposed convention does nothing beyond awakening the American people to the fact that America contains better artists and better subjects for art than any foreign country, and that American art has a future and a glory that will add new fame to our republic, it will have done much, and its projectors will deserve the thanks of every American.

**A Bill Passed to License Architects in Texas.** Texas is the first state to pass a legislative act which calls for the examination and licensing of architects and the general regulation of the practice of architecture. The bill (a draft of which was printed in our March number, page 45) was formulated by the Texas State Association of Architects at its last annual convention, and was passed in the legislature without material change. The provisions of the act are not as rigid as the architects would have them in some particulars, but it is a signal step in the direction of the

establishment of architecture as a profession in the United States, and the improvement of the standing of practitioners. An examining commission, styled the "Board of Architects of the State of Texas," will be appointed by the governor, consisting of three practicing architects, which will serve as examiners of applicants and grant licenses. Architects from outside the state can compete for work without license. The bill as passed is much shorter and more general in its provisions than that formulated by the Western Association, but the Texas State Association deserves the commendation of every association in the country for thus establishing a precedent that will doubtless be followed by the legislatures of the other states, especially if industriously urged, as it has been in this case.

**Why Architects Should Have Designs Published.** Many architects are disinclined to have their designs published, feeling that they get no pecuniary returns from so doing. While there are other considerations that we think should be sufficient to lead architects to furnish creditable drawings of their best work for publication, our observation, which is supported by that of other architectural publishers, is that it is not unusual for an architect to get several buildings from the publication of a single design. A recent case has come to our attention in which an architect whose design for a building was published a few months ago in *THE INLAND ARCHITECT*, secured as the direct result of that publication, orders for a similar building from Rochester, Denver, and Seattle.

**Another Disreputable City Hall Competition.** St. Louis is about to expend "not more than one million dollars" on a new city hall, and the city council go fishing for gudgeons in the same old way by offering as a bait \$5,000 for the adopted plan, "the same to become the property of the city." Of course, with this extremely liberal offer, "plans and specifications" can be procured. Probably \$500 would purchase them just as readily, for the architect who will submit plans will expect to get paid out of the contracts anyway, as he knows his recompense should be \$50,000. We have not seen the "code" which the mayor's advertisement speaks of, but it will probably be a bid for lottery architects to submit plans, and leave the council to select the plan and the architect that will admit of the largest steal in the way of contracts, with no regard for the utility of the building so long as it costs more than the estimate, and a large slice of the bill of extras goes into the pockets of the interested aldermen. Of course, St. Louis would not copy Chicago, but it would benefit those of her citizens who are honest and have influence to make a pilgrimage to Chicago and look at that useless libel upon modern architecture called the city hall, and examine into the history of the competition which procured the plans, and the way the contracts were let and carried out. They would find that, according to the advertisement, the present competition is based upon the same general plan, and the chances are that the results would be infinitely worse. However, it is not too late to remedy the matter. With the Missouri state association representing the architects, and influential citizens representing the interests of the people, a proper competition code that will be favorable to reputable architects can be adopted. It is not too much to say that on the present plan no architect that can be trusted, either for professional ability or honesty, will have anything to do with submitting plans for a city hall for St. Louis.



## Romanesque Architecture.\*

### CHAPTER IV.

THE PANTHEON AT ROME AND THE PALACE OF SARVISTAN (PERSIA).

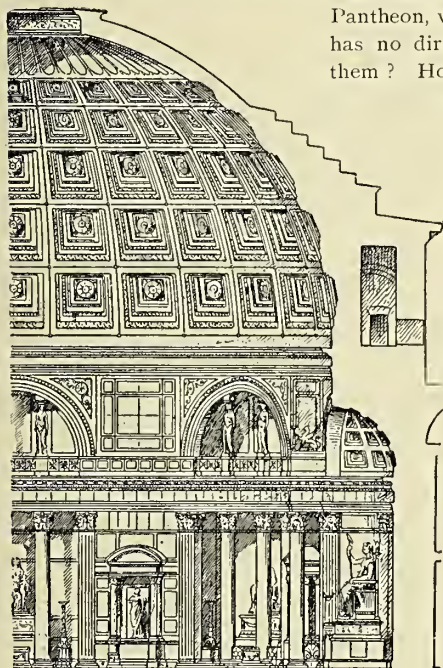
BEFORE taking up again the chronological order, which so much facilitates the study of the great epochs, in the history of architecture, it is well to turn backward to analyze one of the most beautiful works of the Roman architects, the Pantheon at Rome, which must be considered the most perfect of the round temples. Such an analysis would throw light on the imitations, which builders made of it, both in the East and West, in the centuries that followed. It would help us to understand the transformations that they have subjected this admirable type to; that after many attempts they could arrive at the perfect cupola, a point of departure for a system of vaulting, the application of which produced such grand and beautiful works of art in the middle ages.

It is necessary to look much further back, to the fourth century before Christ, to find among the Persians, if not the original, at least one of the oldest applications of the circular cupola built upon square foundations.

From the time of the Republic, the Romans had erected small buildings on the circular plan, covered with hemispherical vaults of concrete. It is thus that the cella of the temple of Vesta is constructed at Tivoli, but from the commencement of the empire this kind of structure developed in a manner till then unknown.

Agrippa built the first of these magnificent baths in the ninth district of Rome. Did he also have erected on the circular plan that vast hall, known by the name of Pantheon, which joins the baths, but has no direct communication with them? However it may be, Dion

affirms that Agrippa completed the Pantheon in the year of Rome 729; that is twenty-four years before the Christian era. But this completion only concerns the portico, erected later in front of the door of the rotunda, as is proven by the inscription that can still be read on its frieze. Whether Agrippa built the Pantheon, or only had it decorated, the interior, with marble in a style of the highest order and the exterior with a portico of gray granite and white marble, it is easy to see, and it is



LONGITUDINAL SECTION, PANTHEON, ROME.

important for us to notice that the construction of this hall and its decoration were two distinct parts.

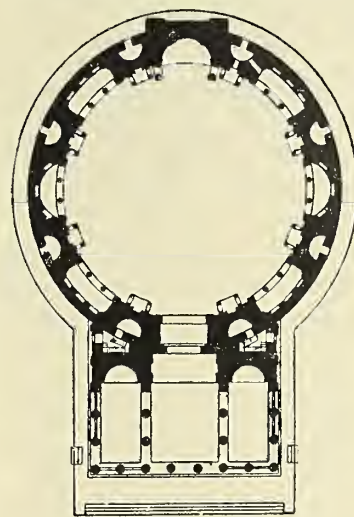
Thus enriched by the efforts of Agrippa, the rotunda was dedicated to Jupiter the Avenger. The diameter is 142 feet 8½ inches, and the circular wall which carries the dome is about 17 feet thick, that is, about one-seventh of the diameter of the interior circle. From the pavement to the summit of the dome it is 146 feet. The diameter is thus nearly equal to the interior height of the whole edifice. The circular wall is not solid. Beside the door of entrance there are seven grand niches hollowed out in it, four rectangular and three semi-circular.

Between these recesses eight niches are arranged in a half circle on the ground floor, and, on a level with the spring of the dome, sixteen others would have opened directly on the outside, had they not been filled in by a thin wall.

There could not be a better construction viewed from the point of durability and solidity. It is entirely faced with large brick, with a filling of rubble in the walls, according to the Roman method, with string courses of marble.

The hemispherical dome which crowns the recessed circular wall of the edifice is built of bricks and rubble. The bricks, hidden in

the thickness of the wall, take the place of the ribs of the vault, and are lightened of their burden by five rows of caissons in the interior.



PLAN OF PANTHEON, ROME.

did not contribute to the solidity of the structure.

The Pantheon is justly numbered among the *chef-d'œuvre* of Roman architecture. It was built by the architect Valerius of Ostia. We have noted before the colossal dimensions of this vast hall, and the decoration which was applied to it after its construction. The attic, originally ornamented with pilasters, which have been replaced with the Caryatides of Diogenes, surmounted the columns. A small cornice separated this attic from the cupola, which rose in one sweep to the circular opening, 28 feet 6 inches across, from which falls a flood of light. This single shaft of light, glistening on the caissons of the cupola, and leaving the grand niches in mysterious shadow, the impressive regularity of the arrangement and the beauty of the material, give to the solemn edifice an extremely majestic aspect.

The palace of Sarvistan, constructed in the fourth century before Christ, rises at the end of a desert plain, traversed by the old caravan road leading to Chiraz, to Darabgherd and to Bender Abbas.

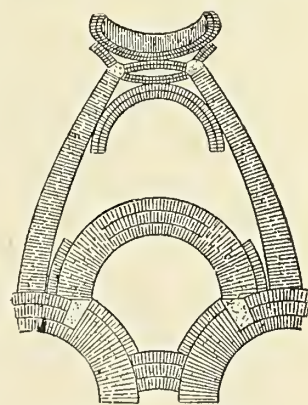
The walls of the building are built of rubblestone, laid in a large quantity of mortar. In the interior they were covered with a coating of plaster. The cupola and the ribbed vaults are still nearly all standing, as well as the walls, in spite of frequent earthquakes. They are built of brick, rough but very strong, owing to the quality of the clay, which has become extremely hard by burning.

The building spreads out around an ornamented hall, the predominant character of which is implied outside by a high cupola, and inside by the vast proportions of the construction and the size of the bays made in the center of the sides. Two entrances open onto the exterior gallery, the first, situated in the general axis of the building, is preceded by a porch composed of three dissimilar bays; the second opens directly from a vestibule communicating with a porch and vaulted room.

"The most interesting part of the building, and that which merits the most careful study, is without doubt the grand hall and the ensemble of the vault which surmounts it.

"The dome, built entirely of brick, is of an ovoid form. It rests on four corbels uniting the angles, and on four pendentives, which unite the base of the cupola with the corbels and the vertical faces of the walls. This whole is sustained on four great elliptical arches, in the center and at the back of which are doors.

"The vast pile of Sarvistan is of very simple aspect. However, it is of the highest interest, for its study throws light on an entirely new period in the history of the cupola, resting on pendentives, of which St. Sophia offers us one of the most celebrated examples."\*



DETAIL OF CONSTRUCTION.  
CUPOLA OF PANTHEON, ROME.

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

\* From "Antique Art of Persia," by Marcel Dienlafay.



## CHAPTER V.

## TRANSFORMATION OF CIVIL BASILICAS—ORIENTATION OF THE BASILICAS AND CHRISTIAN CHURCHES.

From the first years of the fourth century, after the promulgation of the celebrated edict of Milan, in 313, by which Constantine proclaimed Christianity the religion of the empire, Christian architects understood the advantages that they could find in the civil basilicas, admirably arranged for containing a large number, and before constructing entirely new temples for their religion, they appropriated the different parts of the old edifices that were at their disposal for the exercises of the new worship.

Since by the apostolic constitution the church represented the bark of St. Peter, the central avenue of the basilica became the nave (from *navis*, a ship).

The balustrades or walls of support divided the nave into two parts.

At the foot of the nave was the *pronaos*, a space reserved for the neophytes and a certain class of penitents; that is, for all those members of the Christian community who, only being able to attend part of the service, left the church before the communion.

Farther up across the transept was the choir, a space surrounded by a low partition, in which were arranged the desks, where the deacons read the holy scripture. In this place were the choristers, musicians, assistants and the numerous acolytes who, with them, composed the lower order of the clergy of the basilica.

At the extremity of the nave, in the center of the *chalcidica*, or transept, was the place for the altar, the holy of holies, the place for the deacons and sub-deacons. The transept gave to the plan of the basilica the form of the letter T, or tau, a figure for which the Christians had a special predilection, because the tau had the form of the cross.

The altar was placed midway between the triumphal arch opening into the nave and the hemicycle, or apse, built in the wall at the back.

The hemicycle, or apse, which had formerly been the tribunal, became the place for the ordained priests. That is why we find it designated under the name of *presbyterium*. A circular bench followed the line of the wall at the back, and was broken in the middle by a higher seat, called the *consistorium*. The highest place, the *suggestus*, was that of the bishop, or the priest who represented him.

The lateral galleries or side aisles held the congregation.

One of the constitutions of the close of the first century, attributed to St. Clement, indicated that the priest should look toward the east while blessing the host. This rule appears to have determined the arrangement of the church, as it can still be seen in St. Peter of the Vatican, and in St. John of the Lateran, their façades turning toward the east. The priest officiates behind the altar, facing the congregation, the men on his right, that is, to the south; the women on his left, that is, to the north. The side aisles, right and left, were designated by the words *australis* and *septentrionalis*.

In the fifth century the opposite orientation was preferred. The basilicas faced the west, so as to conform to the rule that the priest should turn his back on the congregation. In that way the right, that is, the southern side of the church became the right side of the priest. But singularly enough the right and left of the altar remained as before, the right to the north left to the south. For it had always been understood that the side of the gospel should be at the right of the altar, and the side of the epistles should be at the left, that is, the gospel appeared to the congregation at the *left* turned toward the altar.

In this way confusion arises in the minds of some authors. Not being able to understand that the position of the church was different from that of the altar, they placed the right of the church to the north. The same inversion took place in the seats of the faithful. The Basilica of "St. Apollinaris the New," at Ravenna, a building of the sixth century, which has its façade toward the west, furnishes a proof of this.

The principal decoration of this beautiful edifice consists of an immense frieze, where male and female saints are represented in mosaic. The female saints, which ought to have been looked upon by women, occupied the north wall of the church, while the southern one was occupied by male ones. Thus the men were on the north side, that is, the side of the gospel; and the women were on the south side, that is, on the side of the epistle. It was the result of the false interpretation, mentioned in the preceding paragraph, that this order was changed, in the following centuries.

## CHAPTER VI.

## APSE—BASILICAS WITH THREE DIVISIONS—NAVE AND SIDE AISLES—FAÇADES—BAPTISTRY—LANTERN—BELFRY—DEPENDENT BUILDINGS OF THE BASILICA.

In the earliest times of the Christian Church the use of the apse was changed. It ceased to be the *presbyterium*, to become the *martyrium*, that is, the place where reposed the body of the patron saint of the basilica, or the relics to which the special worship of the place was addressed. It was thus, before the year 500, in the original church of St. Martin of Tours, and this custom spread in the following centuries.

The primitive apse had no other light than that which it received from the nave or the transept. Transformed into the *martyrium* it not only had windows cut in it, but, according to certain authors, it was entirely open to the day, sometimes even to its base, so as to be put in communication with a low gallery that surrounded it, showing, at this period of antiquity, that is, in the fifth century, that sort of arrangement so characteristic of the apse of modern churches.

At the commencement of the sixth century, basilicas were constructed, according to methods of the time, in what might be called three divisions, because the nave and side aisles were considered as so many churches, each having its particular patron. One can easily believe that this idea was suggested to the builders of the Christian temples by the temple of the Capitoline Jupiter at Rome, which contained in its triple cella, three sanctuaries at once, one dedicated to Jupiter, that on the left to Juno, and on the right to Minerva.

The side aisles, as well as the nave, had their altars and their apses, always smaller than that of the center. In archæology they are called *absidioles*.

The plan of St. Peter, in Vincoli, at Rome, built somewhere near the first years of the fifth century, shows this characteristic arrangement, which was so often imitated by the builders of the middle ages.

The dependent buildings of the sanctuary were low constructions, supported against the walls of the apse of the basilica and placed in

communication with it by the entrance, which fills the same office as the modern sacristy. The names of the adjoining buildings have changed according to their time and place. Their place was ordinarily against the wall in the back, at the side of the apse or against the apse.

The nave and the side aisles, forming the body of the basilica, were the parts which changed the least. However, liturgic necessities, or oftener, lack of resources, caused to be introduced into the naves and side aisles arrangements which appear to have had a certain generality. One of the most marked changes was the replacement of columns by piers. A change we find more general the farther away we go from antiquity, for the ruins of ancient buildings, despoiled for centuries, had now no more columns to furnish.

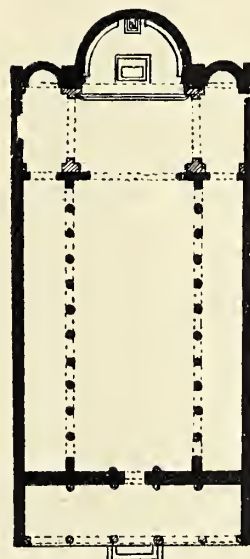
In the northern countries of Europe, columns of stone or marble had never been numerous as in Italy, and it was necessary to import them, at great expense.

When Charlemagne erected the Basilica at Aix la Chapelle, he was obliged to send to Ravenna for columns and marbles, with which to decorate his new church.

In Italy, the side aisles were dark, but it was not the same in all countries, for they were lighted when the arrangement of the place permitted. Ordinarily the side aisles were flanked by narrow buildings, divided into rooms, called *cubicula*, which communicated with the church by the large doors, or else these chambers were equivalent to those which they also called *oratories*, because they contained an apse. The devotees gave themselves up in them to devotion and prayer; privileged persons were buried in them or else they were the dwelling places of a certain order of people.

Not all the churches built from the first centuries of the Christian era were provided with side aisles, for it is certain that many basilicas were erected, composed of a single nave, as the greater part of the rural parishes built during the barbarian epoch.

This is the kind of edifice which the authors of the time of Charlemagne and his successors designated under the name of *capella* (chapel), and the name of chapel was given to all the country churches



PLAN OF BASILICA OF SANTO PIETRO IN VINCULIS, ROME.



even the parish ones, for a long time. Nearly everything that remains of the old religious buildings of the Gauls pertains to chapels of this kind.

The façade of the basilica generally indicated the section of the building, marking at the base the width of the central hall and of the side aisles, profiled by two buttresses, between which the nave mounted, crowned by a pediment.

The doors were three in number, sometimes five corresponding to the three or five divisions of the interior. That in the center was higher than the others, and to all was applied the adjective *regia*, royal. They were closed by folding doors of wood, richly carved, or of bronze, and provided in the interior with a *portière* of precious stuff.

Above the doors in the façade were windows, and in the tympanum of the pediment opened a round window, where can be seen the original of the rose windows, lighting the nave of the cathedrals.

The tympanum and the frame of the windows were often ornamented with mosaics.

Before the doors extended a large portico, closed at both ends, which does not appear to have any particular name in the Latin churches. The Greeks called it *narthex*, of which *ferula* is the equivalent. But the name which was most employed in western Europe is *porticus*, from whence comes porch.

It was in this porch that those who could not take part in all the services stationed themselves to await the moment when they could enter the church.

In the interior of the church, behind the façade, was the *pronaos*, shut in often by a simple balustrade. In certain basilicas, however, it took a more monumental aspect, because it was formed by a colonnade across the foot of the nave, and surmounted by a gallery, as in St. Agnes, outside the walls. This arrangement was little used, except in two-storied basilicas. Then the gallery established a communication between the upper galleries and the two sides.

During the first triumphal centuries of the Christian religion, in which baptism was one of the most important ceremonies, it was the rule that this sacrament should be administered by immersion in an edifice separated from the basilica.

St. Sylvester had constructed, in the fourth century, near the basilica of St. John of the Lateran, which he had received from Constantine, an octagonal baptistry, magnificently decorated, and consecrated to St. John the Baptist, who was the saint to whom were dedicated nearly all of such edifices.

Baptistries were constructed in different forms, round or octagonal, and often on a square plan, divided on each face, or only on three, by a small apse, making the figure of a trefoil or quatrefoil. The central square was crowned with a ribbed arch, or with a little cupola, and the absidioles had quarter-spherical vaults.

In the middle of the baptistry was built a basin that they either filled with water or which was fed by a spring. They often used tubs of marble, granite or porphyry taken from the Roman baths, but oftener the baptismal basin, which could contain several persons, was formed of flags of stone or marble, made fast in the excavation by cement, which formed the bottom.

The absidioles were destined to receive the altars at which mass was said so as to give the communion to the neophytes after baptism.

From the eighth century the usages relative to the ceremony of baptism were changed. Baptism was permitted inside Christian basilicas, and from that time the baptismal basin was placed on the left side aisles, the side where the gospel was read.

From the end of the fifth century a great number of churches presented an arrangement which one does not find in the basilicas of Italy, but which brings to mind that of several churches of Central Syria, of Constantinople and of Greece.

A cupola or a tower rose above the transept, and was called by the writers of the Merovingian epoch the *turris* or chief tower.

The transept was divided into three parts by two walls, each pierced by a great arcade containing the colonnades or arcades of the nave. The *altarium* was transformed thus into a square space between the opening of the apse, the triumphal arch of the nave and the two lateral arches. Owing to the supports of the four walls it was possible to raise the construction above the roof of the nave and the arms of the transept. Pierced by windows on all sides, it had the appearance of a square, polygonal or round lantern, at the summit of which was the roof covering the altar.

The lantern tower shed over the whole sanctuary a flood of light, and could be seen from a distance as the highest part of the church. To give it more effect it was often crowned with a campanile of gilded wood, an elegant structure, which was composed of several recessed

arcades, ordinarily of three stories, from whence comes the epithet *tristega* applied to campaniles.

Without wishing to discuss the origin of bells we should say that their use in Christian worship is not mentioned before the sixth century, and that bells used in the Merovingian epoch must have resembled, in dimension, those used still in schools and market places. It was in the second half of the eighth century that bells acquired such a considerable size that it became necessary to build edifices in which to hang them.

The first belfry of which we have any mention is that of St. Peter of the Vatican.

The first belfries were round in form and always small in size, as shown by the Greek and Byzantine towers, proving the bells which they contained to have been small. These bells were hung in the top of the tower in an open arched space covered by a roof. The rest of the construction was solid, without other openings than the loop holes which lighted the stairs.

Belfries were very often separated from the body of the church. In Italy a great number of churches of all times of the middle ages had their bell towers separated from them by quite a distance.

The plan of St. Gall indicates two round towers systematically placed at the front of the church and communicating with the portico. The legend which accompanies this plan shows that these towers were not destined to receive bells, but were observatories or oratories dedicated to angels, one to St. Michael and the other to St. Gabriel.

In the earliest times towers under the patronage of St. Michael existed in front of basilicas, and surely were not for bells. One in the form of a cross existed in the seventh century at the entrance of the monastery of St. Maur.

Force of habit made them apply the round form to the belfries even in the twelfth century, like that of St. Theodore, of Uzes, which dates from this epoch. Those examples are rare, however, and it appears certain that from the tenth century the square plan was preferred.

Besides the great bell which announced services to people at a distance, they continued to regulate the religious services of the clergy by small bells. In the ninth century, they were placed in the campaniles which crowned the domes.

The building adjoining the Latin basilicas were from the start an important feature, which could not help gaining in importance. It is proper to remark that if the civil or secular basilica was open on all sides to the most frequented parts of the town, the sacred basilica, on the contrary, was removed as much as possible from the public street, and there was at least one court built before the basilica of the size of the façade. This court, surrounded by porticos, which corresponded to the porch of entry, constituted the atrium.

The rich basilicas of the earliest times had an outer inclosure which preceded the atrium. Such was the façade, turned toward the Saone, of a basilica erected at Lyons about 460, by Bishop Patien. It was the period when they were not economical of columns. The two exterior inclosures of the basilica of Lyons each form a triple porch and all the supports are of columns of marble from the Pyrenees. Later, marble was reserved for the interiors and altars. Since the seventh century authors have not spoken of the magnificence of the exterior porticos, which goes to prove that they henceforth built them in a much more simple manner.

Under the side porches, the atrium often afforded cells, which served for the lodges of monks, dwellers in the basilica or for the best recommended of the invalids who came there to seek a cure.

In the midst of the atrium were ordinarily either a vase from whence flowed a stream of water, or a cistern or well. It was there, before continuing into the basilica, that the faithful made their ablutions, of which the holy water at the entrance of a church is a reminiscence.

It was at a very early period that the atrium lost its importance and its monumental aspect. It was only a little court without a portico, surrounded with buildings or walls. This change was owing to two circumstances. All the community had become Christians and the class of neophytes had disappeared. Then discipline had softened in regard to sinners, and as great culprits were the only ones excluded from the communion, troops of penitents ceased to be seen kneeling before the approach of the basilica awaiting the day of reconciliation.

Eventually the extension of the monastic institutions, and regard for those who served them, necessitated the enlargement of the buildings connected with the church.

At the end of the sixth century a greater part of the Christian basilicas had been changed into institutions of religious communities,



often so large that they contained hundreds of people. Later, under the second dynasty, a government imitating those of the monasteries, the government of the canons was imposed by the national council on the clergy of the cathedrals and all the great basilicas. Buildings necessary to the common life of those pious congregations were erected at one side of the church, and it was found convenient to arrange them around a square court. It was into this that the quadruple porch, now grown quite useless as the façade, was changed, under the name of cloister, and remained so during the middle ages.

(To be continued.)

## Architecture in its Relation to Landscape.\*

BY H. H. STATHAM.

IT may perhaps be thought that some excuse is required for introducing the subject of architecture and landscape into the applied art section of this society, and that it is not exactly evident where the "applied art" comes in. My view of it is this, that just as in decorative art there is, in regard to detail, a meeting ground between nature and artificial form, a point at which, on the one hand, natural detail has been so far artificialized, or conventionalized (as the usual term is) as to make it harmonize with man's artificial design and manufacture, while on the other hand purely artificial details may be arranged so as to blend with the design derived from natural forms; so, if we compare nature as a whole, apart from detail, with architecture, which is the blending of all detail in the one great and master decorative art, there comes in, on a larger scale, the same question—how are these two elements, the artificial and the natural, to be blended so that each shall assist the other—that the architecture shall add a new beauty and expression to the landscape, and the landscape shall not detract from or interfere with the effect of the architecture. In other words, if we wish to keep in mind the nomenclature proper to this section, how are we to deal with architecture as "applied" to landscape?

I consider the subject, however, as including town architecture as well as country architecture. There is town scenery as well as country scenery. After we have considered the design of a single building as a whole, we next come to the consideration of its grouping with other buildings, and their mutual effect on each other. Then we generalize further, withdrawing our attention from special buildings to consider the whole scenic effect produced by a group, by a square, and even in certain cases by a whole town seen comprehensively from a distant standpoint. Thus town architecture, viewed *en masse*, becomes in itself a form of landscape effect, and I need hardly remind you that one of the most accomplished water-color artists of the day has for some years devoted his chief efforts to the painting of what may be called London scenery, with the result that his works are generally among the most interesting and romantic in effect among the "landscapes" of any exhibition in which they may be found. From this formation of artificial landscape in towns we pass to the closer connection of architecture with natural scenery in the case of buildings placed in the open country. Here, again, we proceed from the more formal and artificial architecture, which contrasts with the landscape, to that more picturesque (as it is called) and less artificial architecture which seems to partake itself of the character of nature, and to become part of the scenery. This last is more especially the case with old buildings, and those of an unpretentious character; village churches and cottages, which in the course of years or generations have been slowly harmonized, by the coloring of time, into unity with the landscape. But when new building is to be done on a large scale and with ample means, the transition from architecture to nature may be carried out, through the treatment of the grounds and surroundings, in a very complete manner; connecting the house by architectural terraces and steps, first with a formally designed garden, in itself more or less architectural in its symmetrical character, then with plantations not symmetrical, like the garden, in detail, but symmetrical in the general arrangement of their masses as in reference to the more ornamental grounds, while further out they gradually die away into the natural wildness of the surrounding scenery. A familiar example of an attempt at this blending of the house with the landscape is Hampton Court, with its classical garden front, its symmetrically arranged flower garden and lawns and radiating walks, and its canal and avenue in the Home Park; but it is only partially and incompletely carried out, and on one side the Thames puts an abrupt stop to the composition. In the few instances where this kind of scenic design on a great scale can be carried out, the style of architecture of the house itself may be almost anything you please, provided it is good in itself, since the ground can be manipulated to suit it. But except in these few cases where great resources are at command, such as are seldom realized except in the case of a few royal palaces here and there, the architectural style of the building itself, as well as its position, should be considered in reference to the landscape; the consideration of style being mainly a matter of sentiment, that of position a matter of what painters call composition. The practical considerations in selecting a site for a house are, of course, intentionally left out of consideration here; they are most important, but do not come into this subject; it is only necessary to keep behind all considerations as to the picturesque character of a site, the mental reservation—provided always that the sanitary conditions are satisfactory.

The subject is a difficult one to illustrate adequately. I propose here to offer a few general suggestions as to the treatment of town and

country architecture, partly illustrated by some sketches on the walls, and then to pass in review a series of photographs from actual scenes, which will, to a certain extent, illustrate these suggestions, though necessarily in a somewhat incomplete manner, inasmuch as photographers do not select their subjects or their points of view with any such intention.

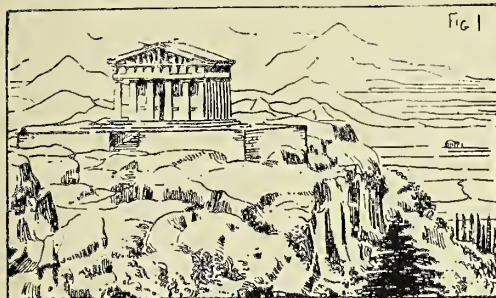
To take first the architectural effects of cities. There are two great distinctions between ancient and modern cities, architecturally considered. First, the ancient practice of building a city within definitely marked boundary walls has been discontinued, and the city, as such, has lost its unity and defined character; it is now no more than a tract of land irregularly covered with buildings. Consequently, the chance of actually designing a city for effect, planning it as a whole from the beginning, is never to be thought of now; Wren had a chance after the burning of London, but the authorities were too much for him. There is no doubt, however, that the deliberate laying out of a large city as an architectural design might result in some splendid architectural effects. I may take as an instance Liverpool, which has climbed and extended itself irregularly and piecemeal along the floor and up the sides of a theater of gently sloping hills, with the river flowing across the chord of the arc. If this city could be begun again, and built in semicircular terraces height above height up the sides of the "theater," it would be, or could be made, one of the most magnificent architectural spectacles from the river that has ever been seen. It is probable that some effect of this kind was realized in such cities as ancient Babylon; but such effects belong essentially to despotism. In a modern town there are too many independent interests to be consulted, and such unity of design is impossible. Bath, however, may be named as an example of a city in which a considerable portion was planned and laid out for effect under the direction of one architect, Wood, and with the result that it is one of the most dignified and stately cities of second-rate dimensions; owing, of course, something to its beautiful site. In Edinburgh it may be said that the site has done everything and the architects next to nothing; there are few really good buildings there, and they do not much affect the general aspect of the city; the advantages of site, for picturesque effect, being such that the worst architecture could hardly have spoiled it, though the finest might add something to it. The other modern distinction is that whereas evidently the ancient routes of streets were mostly determined either by the configuration of the site or by existing landmarks of property, in modern days we lay out the new streets according to deliberate forethought. We cannot lay out a whole town according to a set plan, but we can and do lay out its new streets deliberately, and one result of this is that whereas the old streets had generally curved lines, the modern ones are nearly all straight; a matter which has given rise to much criticism of late. It has been rather too hastily assumed that all streets look better if curved or winding. All streets which are composed, as the great majority are, of buildings of varying height and design, are better so, no doubt; but where it is an object to produce an effect of palatial stateliness, streets running in a straight line, and with buildings symmetrically designed on a preconceived scheme, have their value in the effects of a town. It is a treatment monotonous, no doubt, for general use, as Harley street and Cromwell road testify too well; but when used in moderation, and in connection with buildings of a sumptuous and stately character (for that is imperative) it is capable of very fine effect. In streets of irregular buildings it is argued (by utilitarian people) that there would be something absurd in deliberately laying out a new street on irregular lines for the sake of effect. So long as it is not done to the extent of injuring the convenience of the buildings, I do not see that it is more absurd than laying out garden walks in curves for effect, which is done every day. The object of the garden walks is a practical one—they are for people to get about from one part to another; the streets are only the same thing on a larger scale; the picturesque and the practical may be deliberately provided for in the one case as well as in the other. Shaftesbury avenue has been laid out in curves, and if the new buildings flanking it were not unfortunately (so far) such poor specimens, it would be in the way to be a picturesque street, with no harm to anyone that I know of. It will at any rate be impossible to make it as soul-deadening as Victoria street or Cromwell road.

The question of straight or crooked depends a little on what you have got to see at the end of your street. If you have a great building or monument to close a straight vista, then you had better have the vista. This subject of centralizing buildings and streets and squares on an axis, so as to seem part of a thought-out design, is made a good deal of in France, and much neglected here. It has even been urged, by those who think most about the subject, that this centralizing is a vanity and a fallacy. It is said that St. Paul's, for instance, has a finer effect from standing askew to the top of Ludgate hill, than it would have if it faced Ludgate hill centrally. I am inclined to think so, too, but that is because Ludgate hill is only—Ludgate hill. If it were a broad avenue of stately columnar buildings of similar type to St. Paul's architecture, perhaps combined with an avenue of trees, I think you would want St. Paul's to face it centrally. Take the case of St. Peter's, with its artificially planned colonnades and fountains symmetrically arranged in front of the façade; you could not possibly propose in that case to set the building obliquely to the *place* in front of it. But as, in the case of St. Paul's, we have only a narrow street of miscellaneous shops leading to it, that is *infra dig.*, and it was better the cathedral should ignore it. The one is the architectural effect, the other the picturesque. I do not know that the one is better than the other, but they are different, and you cannot have both together; you must have one or the other. In London we are always just missing the architectural treatment, by carelessness or blundering, without getting the picturesque one. Thus we put the Albert Memorial just nearly enough on the axis of the Albert Hall to look as if it was meant

\* Paper read before the Society of Arts, London, England, April 9, 1889.



to be centralized but had been set out wrong. We have made Constitution hill a straight vista with a monumental arch at the end, as if it formed a piece of symmetrical architectural planning, and when we come out at the arch we find it cuts into the shoulder of a curve and leads nowhere. Now, I think that in the most important squares and streets of a large city, especially of a capital, symmetrical laying out and centralizing of the principal streets and open spaces and buildings



is quite in place; it is an element of stateliness which is proper to such a situation, and the importance and value of which has been much underrated by modern critics.

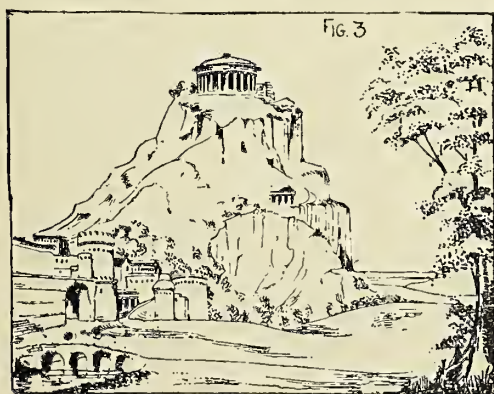
Of course, one cannot overlook, in this connection, the curious fact of the total

disregard of symmetry which the Athenians showed in the placing of their very symmetrical buildings in and about the Acropolis, even building the small Niké Temple by the gate slightly crooked to the gate. This proves that they were indifferent as to symmetrical relations of their buildings, in this case, at least, and that they did not regard the Acropolis architecture as a whole, but as so many independent buildings placed where they were most convenient. I do not think that there was a calculated effort, on principle, to avoid symmetry in placing the temples. They were built at different times and for different objects, and were not thought of in connection with each other.

The combination of foliage with architecture in cities is a source of beautiful effect, and I will call attention to one or two examples later on of the increased effect given to city buildings by an admixture of foliage in the scene. I may refer again to Edinburgh in this connection, and notice the fine effect of the high buildings on the Old Town side, as seen from Princes street. In London we may remark the picturesque effect of the foreign offices as seen from the suspension bridge over St. James' park water, rising over the mass of trees, with the water in the foreground; a London picture which would be worth painting; I never saw a picture of it yet. It is worth while, also, to keep an eye on vistas into the surrounding country from the city. At the end of one of the longest, straightest, and dullest streets in London, for instance,



which the cab-drivers call "Gower" street, but which is properly pronounced Gore street, there is to be seen, on a certain number of days in the year, more or less (according to the state of the London atmosphere), a vision of a distant hill, like the Delectable Mountains in the "Pilgrim's Progress," filling up the space between the two rows of houses with its faint distant green and purplish tones. This is Hampstead hill which (though few people in London know it) stands at its highest point just on the line of Gower street, and sends a glimmer of nature down the street. I should be sorry, indeed, to see even the best new building block out that little incident. Of similar value, in a rather different way, would be the opening a view of the Mall and the trees into Charing cross, if commissioners of works ever allow us to have it done. Before quitting this question of architectural landscapes in towns, let me name one splendid effect in London, also little known, namely, the view of the Victoria Tower from what is called the Little Cloister at Westminster. As an architectural picture this view of the great tower, seen looking up from the confined little



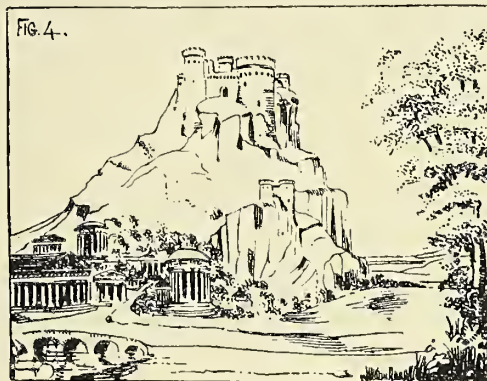
cloister yard with its prim arcade and railings for the foreground, is really sublime, and if Mr. Herbert Marshall's attention were directed to it, we might hope to see it illustrated in a manner worthy of the occasion.

Coming now to the country, and the combination of architecture with natural

scenery, it has been said that this may be considered under two heads, the character or sentiment of the building as compared with that of the landscape, and its position as a matter of composition.

The former relation is one exceedingly difficult to define or to reason about. The harmony of a building with the landscape depends on so many considerations of detail and, even of association, that it seems almost impossible to frame any principle which shall meet or explain all cases; it is a matter to be felt rather than reasoned about. It has been said that

Greek architecture is specially unsuited to wild and rocky sites, yet the Greeks planted their masterpieces of architecture on the Acropolis rock, and there is the sketch of Cockerell's restoration of the Temple of Jupiter at Ægina (Fig. 1), on a platform on a rocky site, and not looking, I think, out of keeping with its position, though it might look so without the platform; I have introduced that in order to connect it with the rocky ground. The Doric temples of Paestum are on a level plain; and Linton's large painting of them, No. 1029 in the National Gallery, rather goes to prove that they are not very well adapted for pictorial treatment, at all events, on such a site. On the other hand, both Claude and Gaspar Poussin, and other landscape painters of that school, love to combine their classic ruins or temples with foliage and with quiet and pastoral landscapes, as shown in some of the sketches in *Liber Veritatis* (Fig. 2); and the two elements seem to harmonize beautifully. It must be observed, however, that Claude never uses

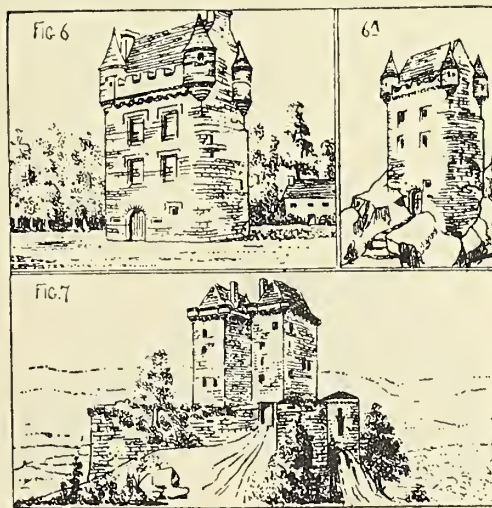


the sterner forms of Doric architecture, of which, in fact, he knew nothing; he painted the remains of Roman Classic architecture as he saw them combined with Italian scenery. Turner, in such paintings

as "Dido building Carthage," and others, where a quasi-Classic architecture is introduced (quite an anachronism, by the way, as he introduces Italian Renaissance architecture into very ancient classic legend), is fond of the rounded masses of foliage of the stone pine, in contrast with the straight lines of his architecture. On the whole, it may, perhaps, be said that Doric architecture harmonizes best with wild and rocky scenery, and that the lighter and more graceful forms of Greek architecture harmonize best with more pastoral and wooded scenery; though there here rises up in my memory Mr. Poynter's picture of the "Visit to Æsculapius," with the great white Doric columns shimmering through a mass of foliage; but that we may say is detail—neither the whole building nor the whole landscape are seen. There is another sketch from the *Liber Veritatis*, in which Claude has placed a smaller circular temple on the very top of a rock (Fig. 3), and placed his castellated architecture at the base. Here the castle seems to defend the entrance to the town, and the temple is placed safely aloft; but I should like it better if the hill were rounded and clothed in trees rather than a bare rock.

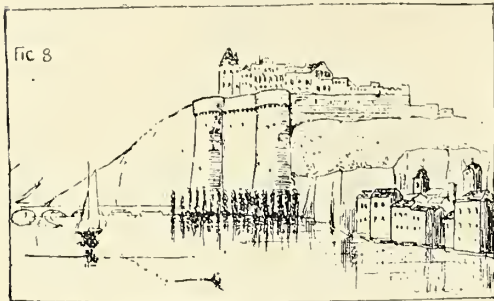
I have made a sketch (Fig. 4), copying Claude's composition precisely, but reversing the style of the buildings, and placing the castle at the top of the rock, to try the effect; it gives an absolutely different sentiment to the view at once, and, at all events, illustrates the important effect which the architecture introduced has upon the expression of a landscape. In other drawings Claude adopts the system of placing the castellated buildings on the high and not on the low ground; and these sketches illustrate another habit of his, that of introducing a castle or tower to give greater effect, by contrast, to his graceful Classic architecture; a hint as to the value of plain spaces in a building in giving emphasis to the more decorative portion.

Generally speaking, I think we may conclude, in spite of occasional exceptions, that a stern and severe landscape demands a massive



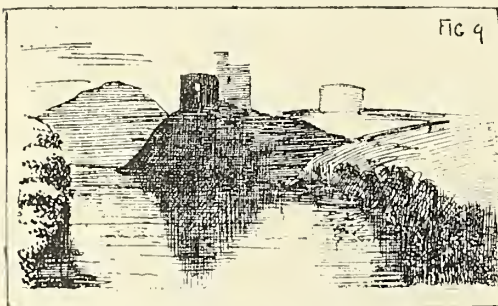


and severe style of architecture, a quieter and more wooded landscape, a graceful and delicate style of architecture; and mountainous ground and a lofty position demand powerful buildings, of comparatively horizontal character, while a low level landscape permits and demands buildings of a less severe style, and with lofty vertical features to contrast with the lines of the landscape. A spire on a hill is completely out of place; there is an instinctive feeling of insecurity; on a low level it is the expression of an attempt to rise, an inspiration, which on the height is uncalled for. A characteristic illustration of this is



shown in a view which I found in an old sketch-book in the Institute of Architects' Library (Fig. 5), where the remains of the castle are seen on the hill, the village with its trees and church spire clustering at the base. A square Scotch castle rising from a level lawn, like the sketch of Udny Castle (Fig. 6; it is all built up with modern additions now), looks curiously out of place. Where, as at 6A, or as at Borthwick (Fig. 7), the castle is led up to by a precipitous ascent, its stern rock-like machicolated towers seem in keeping with their position; and the full wildness and sternness is reached when a castle is, as it were, toothed into crags and precipices, so that you can hardly say where the rock ends and the building commences. A remarkable example of castellated effect of a somewhat different kind is shown (Fig. 8) in Turner's sketch of the Chateau d'Amboise (*Liber Studiorum*) where the great bastions founded on the lower level seem to stand on guard beneath the habitable chateau on the top.

A rounded and wooded hill, equally with a bare and precipitous one, seems to require a repose and solidity of form in any buildings placed upon its summit. Turner repeatedly shows his predilection for this effect, as in the sketch here from his "Kilgarron Castle" (Fig. 9). Everyone, I think, will agree that if, for the compact and square-proportioned masses of castle, you were to substitute a thin and spire-like building, the feeling of the whole composition would be destroyed. A similar effect is shown in the pile of square-lined buildings of Cintra, with a dome as the only prominent feature, clustered on the top of a wooded hill. It may be observed that this effect of building of a rather solid and horizontal character, rising above undulating masses of foliage, is nearly always pleasing; one or two other examples will be shown further on; but, on the other hand, Gothic architecture, at all events in its more ornate and be-spired and be-pinnacled examples, is out of place among trees and woods, in spite of various rhapsodies of the poets on the subject. For combination with foliage we want level lines and broad masses, which is the reason Classic and Italian architecture generally goes well with a wooded landscape; Gothic architecture of the later period is the architecture of towns rather than of country; its multitudinous detail, which in a city supplies an element of richness and variety of detail, in the country only seems attempting to compete with the infinite detail of nature; and its varied skyline does not present sufficient contrast with the equally varied skyline or silhouette presented by trees. The early Cistercian monastery churches, nearly always placed in wooded valleys, were of a broad and simple type of architecture with little decorative detail, and their expression of repose, and the broad simplicity of their architectural design, harmonize admirably with their situation. Such Gothic as Henry VII's chapel, on the other hand, is essentially city architecture. So, also, are the French cathedrals of the middle Gothic period, with their forests of stone scaffolding in the shape of flying buttresses; in an open country they would be intrusive and pretentious; in a city, with houses piled up all round their base, they seem the natural expression of the crowded and intricate life of the city. Our simpler English Gothic has in many of its examples an expression of repose and reserve which fits it for the very different position which most English cathedrals occupy, in the midst of an



inclosed lawn or "close," instead of being packed up amid heaps of house architecture piled in irregular masses almost against their very walls, as is often the case with continental cathedrals. I remember being much struck, when I first saw Salisbury Cathedral, with the remarkable fitness of the building to its site; its graceful and elegant design, all complete in nearly the same period of architecture, and, therefore, with a unity of style and expression which most of our cathedrals have not, rising from a base of level lawn giving admirable contrast and effect to the vertical and pyramidal lines of the building. Hence I was much interested to find, only a few days ago, in the charming letters of Motley the historian, which have just been published, a record of a similar impression

to that I have referred to about Salisbury Cathedral, which is worth quotation here:

This was the first specimen of English Gothic I was to see, and as I walked thither my head was full of the Continental Gothic, which as yet was all I knew. I thought of the Cathedral of Cologne, of Vienna, of Rouen, of strange unfinished, unfinishable buildings, built according to no plan, or rather, according to a dozen different ones, and rising helter-skelter from the midst of a multitude of old, sharp-gabled, red-tiled, ten-story houses, all looking as if built in the time of the Crusaders. The idea of a Gothic cathedral was associated in my mind with hundreds of tumble-down hovels, booths and shops, mixed grotesquely here and there with a magnificent palace of half a dozen centuries.

So that on the whole, when I came to look on Salisbury Cathedral I was most ridiculously half disappointed. It was my own fault or my own stupidity. The church is of beautiful proportions, of the most beautiful (at any rate the most regular) of the Gothic styles [namely, the early English], is built of a fine colored stone, which looks as fresh as if of yesterday, and with its light and graceful and very high spire, its long lancet-headed windows, its massive walls and stately buttresses, is certainly one of the finest cathedrals I know. Influenced by the associations I have mentioned, I thought the whole scene at first too tidy, too notable, too house-wifish; but, as I said before, this was only my own dullness; on second thoughts, I acknowledged to myself that filth and poverty and ugliness were not necessary concomitants of a cathedral, and I confessed that I had rarely seen a more lovely picture than this same church presents. The scene is so softly and sweetly English. The stately and graceful cathedral with its green and smooth shaven lawn in front, the surrounding elm trees in their magnificently massive foliage; the tidy cottages half covered with honeysuckles and rosebushes, the hawthorn hedges, and the green meadows with their sleek cattle (to say nothing of the macadamized turnpike and the new hotel), altogether make up a scene purely and exclusively English, and, perhaps, after all as pleasing a one as you can find anywhere.—*Motley's Correspondence*, Vol. I, pages 59 and 60.

It is worth note that Repton, who had such an immense reputation as a landscape gardener in the early part of this century, and whose wholesale method of "treating" ancient mansions and parks, so as to get new effects out of them, is rather satirically referred to in Jane Austen's best novel,\* evidently had a strong impression as to the fine effect of broad solid masses of building, rising out of equally broad but undulating masses of trees. Two of his sketches for effects of this kind are given; one is Bayham Abbey (Fig. 10), the other a composition; the idea is the same in both cases—to have square battlemented buildings rising from among undulating masses of trees. Repton may have done many foolish things, probably did, but in his liking for this particular effect he has, at any rate, the sanction of Milton—

"Straight mine eye hath caught new pleasures,  
While the landscape round it measures;

Towers and battlements it sees,  
Bosomed high in tufted trees."

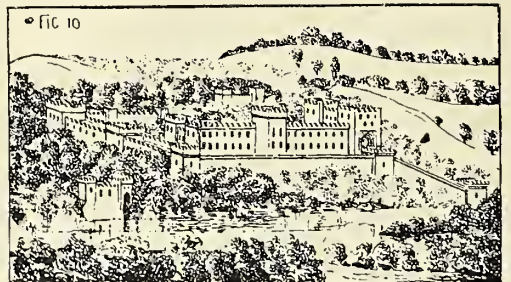
an expression which exactly gives Repton's pet ideal.

What was true about Salisbury and its level lawns is true about spire architecture and level country on a more extended scale. Spires, as before observed, are out of place on a hill, and they are not very effective beneath a hill, and this seems to have been tacitly felt by spire-builders.

In mountainous landscapes we generally find that spires, if introduced, are mere little picturesque timber and shingle affairs, toy spires; not work of a monumental type. It is on an expanse of flat country that a spire, or a tall tower with a spire or lantern termination, enjoys its true honors. Lincolnshire, most of which is as flat as a plate, is a remarkable district in exemplifying this. There the spires seem to vie with each other in height and slenderness of proportion, as if there was a game of brag between the builders (as there very likely was) whose spire should rise highest and be seen farthest. On such a coast "Boston stump," as it is irreverently called, was a thing worth building; its whole height can tell for many miles inward and seaward, in a district where the land is as flat as the sea; on a higher and more undulating coast half its value would have been lost. Lincoln Cathedral, on the other hand, standing on the top of the only eminence for many miles round, requires no spires; it may have been intended to have spires, but it is much better suited to its site without them, and perhaps it is the lofty and exposed situation which prevented their being carried out, nature in this case imposing her own law of esthetic. Peterborough Cathedral, which stands low in a level country, suffers very much for want of a central spire, and I have always regretted that the Archbishop of Canterbury's brilliant and cleverly-worded judgment on the Peterborough restoration dispute should have summed-up by dismissing Mr. Pearson's proposed new spire with costs; the spire would have been an effective and legitimate completion to the building and a great addition to the landscape. As it is, Peterborough Cathedral has no means of asserting itself in the landscape; you have to look for it, and have some difficulty in finding it.

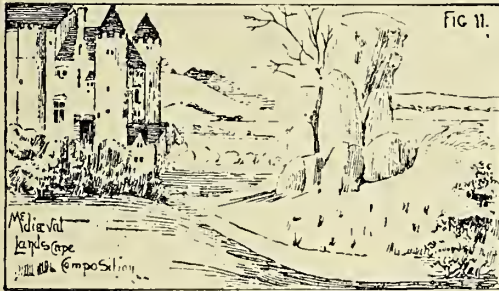
The combination of water with architecture is often a source of beautiful effect; in fact, there is such an enchantment in the reflection of buildings in calm water that it may almost be said that the poorest and most commonplace architecture will have a charm under such circumstances. That is half the secret of the extraordinary charm of Venice; it is not only the peculiar picturesqueness and richness of her architecture, but the having it framed amid the glancing lights and reflections of water, one effect of which, sometimes overlooked, is in the double lighting of the architecture, from above and below. This combination of architecture with still water

\* "Mansfield Park;" chapter VI.





gives a great added beauty to many of the French Renaissance chateaux, with their moats and often with a partially encircling river or canal reflecting their turrets; also, it need hardly be added, to many of the Dutch country houses and towns. In a town, unfortunately, there is always a certain difficulty in keeping artificial water clean and wholesome; but if that were surmounted (and it can be with a little care and cost), I have often thought something might be attempted in this way to give new brightness and variety of effect in cities. An audacious proposition was made a few years ago, to make the whole of Trafalgar square, between the roadways, a basin of water. One would wish to see a better national gallery façade to reflect in it; but with a really fine façade there the effect would be splendid if properly done. However, no doubt this is, as people say in another place, "outside the region of practical politics." In regard to the combination of architecture with water in the shape of



either lake scenery or on a sea-side site, the two conditions seem to demand a special and very different treatment. A lake is usually surrounded by high hills, in relation with which vertical features are out of place or are thrown

away; and, except in violent weather, a lake secluded by the hills round the bases of which it is formed suggests an idea of repose of effect; and both this feeling and the level expanse of the lake water, seem to me to suggest an idea of level building, of repose combined with grace of structure. A building close on the sea, on the other hand, should above all things suggest the idea of massiveness and stability; rock-like surfaces of wall against which the salt-laden sea wind may beat in vain. Longfellow has summed up in an admirable stanza the expression of the stability of a lighthouse against the storm:

"The startled waves leap over it; the storm  
Smites it with all the scourges of the rain,  
And steadily against its solid form  
Press the great shoulders of the hurricane."

In the two last lines you almost feel the tremor of the building under the pressure of the wind. A lighthouse is a special building for a specially exposed site, of course, but what I mean to suggest is that seaside architecture should have something of the lighthouse character about it; it should seem like a bastion against the winds and waves. Some of the new school of American architects have realized this exceedingly well in designs for seaside houses. It is an odd contrast to this theory, certainly, that, as a rule, what are called watering places, in England, especially, are more gimcrack in their architecture than any other class of towns, probably because they are largely composed of lodging houses run up for commercial reasons, and occupied by no permanent tenants. In the old unsophisticated portions of seaside villages it is curious what a tendency the cottages and smaller houses have to assume a character that reminds one vaguely of boats, so that in railway traveling I have fancied I could tell when we were nearing the sea by this boat-like character of the cottages, with a much larger employment of wood, especially of tarred wood, overlapping like the planking of a clinker-built boat. It is quite certain that a cottage in the neighborhood of the sea will usually have a totally different expression and character from that of a cottage in an inland agricultural district.

In regard to composition in the placing of architecture in landscape, this cannot, of course, be carried out with the same choice and decision as in a picture, because we cannot in a real landscape impose any special point of view on the spectator; as Shenstone the poet discovered when he created an artificial distance in front of his house. This was done by planting trees at the margin of an open glade in lines approaching each other so as to create a false perspective; a break was made in the line of trees halfway, by a recess on each side of the glade, on the further side of which trees were planted of a much more slight and delicate character, and a dwarf summer-house filled up the end of the vista, painted in delicate and subdued tones to look distant. The Nemesis that overtook Shenstone was that the Lytteltons, who had the adjoining estate of Hagley, entertained their visitors by bringing them to the boundary line to look at Shenstone's perspective from the small end. We may, however, consider our buildings in regard to their effect on the landscape to some extent, without sinking into this kind of bathos. It is of some interest to see how painters like to have buildings placed in their landscape, and some examples in the National Gallery and elsewhere are suggestive in this way. I may call attention first to two sketches (Figs. 11, 12) which are taken from medieval illuminated manuscripts the only two instances I could find, in turning over many examples, of direct attempt at landscape effect in work of this type. In the smaller one the care with which the spire is planted just at the junction of two slopes of hill is to be noticed. The earlier Italian painters are delightfully naïve sometimes in the way in which they arrange these



things; for instance, in Pinturicchio's series of the "Story of Griselda," in one of which (No. 912, National Gallery) a long wooded hill which runs across the picture is abruptly cut off on each side and a trench left in the middle, to give room to place a triumphal arch on the lower level in the center of the picture.

(To be continued.)

## Punishing a Railroad for Reducing Freight Rates.

ACCORDING to the Chicago *Tribune*, of April 18, it seems that Senator Cullom and a majority of the members of the senate committee on interstate commerce intend to spare no brain labor in devising a scheme to punish the Grand Trunk railroad for reducing freight rates on Illinois and western products to the seaboard. The senate committee is soon to meet in New York, and, after consultation with the Wall street holders of chromo stocks in the American trunk lines, will try to arrange some plan that will force the Grand Trunk railroad to put up freight rates on western farmers on traffic between Chicago and the seaboard or else abandon the western carrying business altogether. If the Grand Trunk insists on giving western farmers low rates and competing with the American trunk lines, it is proposed to shut it out entirely from doing business in this country.

Senator Cullom and his associates are greatly mistaken if they think there is a popular prejudice in the West against the Grand Trunk railroad because it is a Canadian corporation and a part of its through line between Chicago and the seaboard runs over Canadian soil. Patriotism does not require that a Canadian corporation shall be forbidden to compete with New York and Pennsylvania roads and punished for making low rates to western producers. It is true that in taking freight 1,000 miles from Chicago to New York the Grand Trunk carries it for about 200 miles through Canada after crossing the Detroit river and then, crossing at Niagara Falls, brings it back to American soil to be forwarded to the seaboard over American roads. If American freight is carried a longer distance through Canada it is only to reach the markets of Boston. These circumstances, however, are immaterial. The Grand Trunk may be owned by Britishers, as is the case with the Illinois Central and other American roads (the stocks and bonds of half the roads in this country are largely held in England, Holland and Germany), but the western people are interested, nevertheless, in having this Canadian road free to compete and make the best rates for American traffic it can. The Grand Trunk has saved the people of the West during the winter months from the exactions of an extortionate combine between the Wall street trunk roads. Lake competition keeps rates near a reasonable level in the summer, but the allied Wall street lines would recoup themselves as soon as the lakes were closed and levy on the western traffic for all it would stand if it were not for the competition of the Grand Trunk. It is most fortunate that this Canadian road has kept out of the Wall street pools and given the American public lower rates than the allied Wall street lines would willingly permit.

Without such rates to the seaboard it would be impossible for western farmers to keep a footing in the grain markets of Europe against the competition of the Indian and Australian colonies. Low export rates are imperatively necessary to permit the shipment of American produce abroad and prevent an adverse balance of trade. It is of vastly more importance to western interests that all roads, Canadian or domestic, should be left free to compete and make as low rates as they please, than that a scheme should be adopted to insure the Wall street pooled lines fat dividends on fictitious capital.

Senator Cullom seems to think it his duty to represent the interests of the speculative patriots who manipulate stocks in Wall street and want to squeeze all they can out of western traffic. The trunk line pool may be manipulated by Wall street "gentlemen," but they are a rapacious set, nevertheless, and want all the feathers they can strip from the western geese. Free competition against the trunk line combine is welcome, even if it comes from a Canadian road.

## A Mammoth Manufacturing Plant.

IT is proposed to erect in Chicago, on the south side of Polk street, between the river and Beach street, a mammoth fireproof manufacturing and business building, to be called the Hercules, a perspective view of which is published among the photogravure plates in this number. It will have floor space divided to suit tenants, and supply power, steam and electricity. Its length will be 497 feet, depth 372 feet. The height of the building will be 120 feet, and the tower, which will be 208 feet high, will have a frontage of 84 feet and a depth of 112 feet. The total cubical contents of the building will be 22,610,000 cubic feet, the valuable area 1,261,090 square feet and the total area of the ground occupied 1,465,510 square feet or 33.64 acres.

The building will consist of a skeleton of steel fireproofed, and walls of stone, brick and terra-cotta. The floors and supports will be in strength up to the highest warehouse standard.

It will be equipped with 2,000-horse power, contain twenty-eight elevators for freight and passengers, nine large fireproof stairways, light and air abundant everywhere and every provision possible for safety, health, comfort and the transaction of business.

On the river front there will be wharfage for the largest vessels and about half-a-mile of railroad sidings in the basement connecting with all railroads.

The purpose of the building is to supply much needed power and other facilities and advantages for manufacturing near the center of the city and adjacent to the freight depots. When completed it will probably be the largest and most complete building of its class in the world. It is designed by W. L. B. Jenney, architect and engineer, of Chicago.



### Association Notes.

AMERICAN INSTITUTE OF ARCHITECTS.—A. J. Bloor, 18 Broadway, New York, secretary.

WESTERN ASSOCIATION OF ARCHITECTS.—Sixth annual convention will be held November 20, 1889, at St. Paul and Minneapolis. Norman S. Patton, Chicago, secretary.

NATIONAL ASSOCIATION OF BUILDERS OF THE UNITED STATES OF AMERICA.—Second annual convention will be held the second Tuesday in February, 1890, at St. Paul. Wm. H. Sayward, Boston, secretary.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS meets the second Monday after the first Tuesday of every month. Annual meeting, October, 1889. O. J. Pierce, Chicago, secretary.

WESTERN NEW YORK STATE ASSOCIATION OF ARCHITECTS meets second Tuesdays of October, February and June of each year. Annual meeting in October, at Syracuse. W. W. Carlin, Buffalo, secretary.

WESTERN PENNSYLVANIA STATE ASSOCIATION OF ARCHITECTS.—Headquarters at Pittsburgh.

MISSOURI STATE ASSOCIATION OF ARCHITECTS meets at Kansas City on the second Tuesday in January, 1890. James Oliver Hogg, Kansas City, secretary.

THE ARCHITECTURAL ASSOCIATION OF IOWA.—Annual meeting, second Wednesday of February, 1890.

THE ARCHITECTURAL ASSOCIATION OF MINNESOTA meets every other Tuesday at Minneapolis and St. Paul alternately.

KANSAS STATE ASSOCIATION OF ARCHITECTS meets at Topeka on the third Tuesday of January, 1890. J. C. Holland, Topeka, secretary.

ASSOCIATION OF ALABAMA ARCHITECTS.—Annual meeting, second Thursday in October. John Sutcliffe, Birmingham, secretary.

ASSOCIATION OF OHIO ARCHITECTS meets annually. Next meeting, third Thursday in August, 1889, at Dayton. F. J. Otter, Dayton, secretary.

ASSOCIATION OF TENNESSEE ARCHITECTS meets quarterly. Annual meeting, third Thursday in February, 1890, at Nashville. W. C. Smith, Nashville, secretary.

ASSOCIATION OF TEXAS ARCHITECTS meets at San Antonio on the third Tuesday of January, 1890. W. W. Larmour, Waco, secretary.

KENTUCKY STATE ASSOCIATION OF ARCHITECTS meets at Louisville first Thursday in each month. O. C. Wehle, Louisville, secretary.

LOUISIANA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in May, August, November and February. Annual meeting in February. W. C. Williams, New Orleans, secretary.

KANSAS CITY SOCIETY OF ARCHITECTS meets Monday afternoon of each week, at 4 o'clock. Annual meeting second Saturday in April, 1889. G. M. D. Knox, secretary.

NEBRASKA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in January, April, July and October in each year. F. M. Ellis, Omaha, secretary.

WISCONSIN STATE ASSOCIATION OF ARCHITECTS meets first Monday of each month. Annual meeting, first Monday after first Sunday in January. Howard Russell, Milwaukee, secretary.

BUFFALO SOCIETY OF ARCHITECTS meets first and third Tuesdays each month. H. L. Campbell, secretary.

THE CHICAGO ARCHITECTURAL SKETCH CLUB meets every alternate Monday at the club's headquarters, Art Institute. C. A. Kessell, secretary. Annual meeting, November, 1889.

ARCHITECTS' AND ENGINEERS' SOCIETY OF OREGON.—Cleveland Rockwell, secretary, Portland.

ARKANSAS SOCIETY OF ENGINEERS, ARCHITECTS AND SURVEYORS.—Second annual meeting, November, 1889, at Little Rock. A. G. Gibb, secretary.

MICHIGAN STATE ASSOCIATION OF ARCHITECTS meets at Detroit on the first Thursday of each month. J. S. Rogers, secretary, Detroit.

#### EDINBURGH ARCHITECTURAL ASSOCIATION.

On Saturday, March 23, the members of the Edinburgh Architectural Association, along with a large contingent from the Glasgow Architectural Association, paid a visit to Mid-Calder House, and also to the Old Parish Church, which, through the kindness of Lord Torphichen and the Rev. Mr. Gardiner were respectively thrown open for viewing. The party was conducted over the house by Mr. J. Harrison, who sketched the history of the Sandilands family, so long connected with the house and the locality. The various apartments were examined, chief of which being that in which history relates John Knox to have dispensed the sacrament of the Lord's Supper openly for the first time, in conformity to the practice of the Reformed Church in Scotland. Among other portraits, the room contains a famous one of John Knox, and also one, well known, of Mary Queen of Scots. Leaving the house, the party was next conducted over the Old Parish Church adjoining by Mr. Hippolyte J. Blanc. He explained that though the church now presented an edifice comprising choir and transepts, yet the only part of the original was the choir, the transepts having been added about thirty years ago. In introducing the subject of their visit, Mr. Blanc referred to the characteristic features of Scotch ecclesiastical architecture of the period, and illustrated it by well-known examples. From studying the details of the edifice it might be concluded, Mr. Blanc showed, that the church was a foundation of about the middle of the fifteenth century; the documentary evidence showed that in 1542 Peter Sandilands, then pastor of Calder Comitris, having laid the foundations of

the "queir and revestrie of the Paroche Kirk of Calder," took an obligation from his nephew and grandnephew to carry on and complete the fabric according to certain specified dimensions and style; and further, to build a nave at the west end with a steeple between it and the choir, and a "closter" on the north side of the choir, the roof of the choir to be of stone, groined in the same manner as that of "Sanct Anthonis Yle, in Sanct Gelis Kirk." Whether from lack of funds or some other cause, all that was carried of the scheme was the choir, and even that part never had the roof completed in the manner specified. Mr. Blanc described the plan originally built as being a simple parallelogram about 70 feet long by 23 feet wide, having a polygonal termination at the east end. Abutting upon the east end is the vestry, which seems to have been provided for by the founder to inclose the family vault which is underneath. Externally the south front is divided into two wide bays with heavy buttresses, which latter are also repeated on the angles of the apse, though not on the north side. The lighting is by means of large four-light windows, each occupying nearly the whole surface of each bay on the south side only, the mullions in each case branching out into the pear-shaped loop tracery so characteristic of Scottish ecclesiastical architecture of this period. Mr. Blanc went over the various architectural details of the building, pointing out their peculiarities, and also the several decorative features whereon were represented the arms of the Sandilands, Douglasses and Stewarts, whose families are connected. At the close Mr. Blanc explained the terminology of the district, and the connection with it of the family of Sandilands.

#### THE ARCHITECTS' CLUB OF ST. LOUIS.

Some fifteen St. Louis architects met last month and formed a club, which will be known as the Architects' Club of St. Louis. The following constitution and by-laws were adopted:

##### CONSTITUTION.

SECTION 1. The name of this association shall be The Architects' Club of St. Louis.

SEC. 2. The objects of this Club are to promote the artistic, scientific and practical efficiency of its members and to cultivate and encourage the study of art.

SEC. 3. The Club shall consist of active and honorary members.

SEC. 4. Any person practicing architecture in the city of St. Louis shall be eligible for membership.

SEC. 5. The officers shall consist of an executive committee of three, elected at each annual meeting.

SEC. 6. The annual meeting shall be held on the second Tuesday of April in each year.

SEC. 7. This constitution may be amended at an annual meeting by a vote of a majority of the active members.

##### BY-LAWS.

ARTICLE I. Regular meetings shall be held on the second Tuesday of each month and be presided over by a chairman appointed for that meeting by the Executive Committee.

ART. 2. At each regular meeting there shall be served a lunch costing about \$1 per plate, the expense of same to be defrayed from the treasury of the Club.

ART. 3. The Executive Committee shall elect from their members a chairman, secretary and a treasurer. The chairman shall preside at the annual and all Executive Committee meetings. The secretary shall keep minutes of all meetings and conduct all correspondence, subject to the control of the Executive Committee. The treasurer shall collect all funds of the Club and disburse the same on the order of the secretary when countersigned by the chairman of the Executive Committee.

ART. 4. The Executive Committee shall have charge of all the business and interests of the Club, arrange the place of meetings and the programmes, issue calls for special meetings, etc.

ART. 5. Candidates for membership shall be proposed by the Executive Committee at a regular meeting and be voted upon at the following regular meeting. Two negative votes shall reject.

ART. 6. Dues for active members shall be one dollar and a half (\$1.50) per month, payable in advance.

ART. 7. These by-laws can be amended at any regular meeting by a vote of a majority of the active members.

The officers elected for the year are: President, P. P. Furber; secretary, L. C. Bulkley; treasurer, A. F. Rosenheim.

#### CINCINNATI ARCHITECTURAL CLUB.

A sketch club that should prove extremely beneficial to the draftsmen of Cincinnati took definite shape in January in the formation of the Cincinnati Architectural Club, and comfortable quarters were rented and furnished at 298 Vine street. The following club competitions have taken place:

January 3.—Wrought-iron door-knocker. *Requirements*—Pen and ink perspective sketch on 15 by 20 paper. Scale, half full size.

January 17.—Gargoyle. *Requirements*—Side elevation only on 15 by 20 paper, pen and ink work. Scale, 3 inches equal 1 foot.

January 31.—Gothic window. *Requirements*—Style to be in English decorated period, window to be 8 feet wide, pen and ink drawing, 15 by 20 paper. Scale, ½ inch equal 1 foot.

February 14.—Oriel window. *Requirements*—Pen and ink rendering of perspective, 15 by 20 paper. Scale, ½ inch equal 1 foot.

February 28.—Front of city residence for 20-foot lot. *Requirements*—Building to be 3 stories high, perspective sketch or elevation in pen and ink rendering. Style, optional. Scale, ¼ inch equal 1 foot.

March 14.—Baptismal font. *Requirements*—Perspective and plan in pen and ink rendering on 15 by 20 paper. Material, optional. Scale, 1½ inches equal 1 foot.

March 28.—Pen and ink rendering from photograph to be issued.

April 11.—Mortuary chapel. *Requirements*—Style, Romanesque; paper to be all 20 by 30, two sheets wanted, one to contain plan and two elevations drawn to ¼ inch scale. This sheet to be filled in pen and ink rendering, no shading and no brushwork on elevations. A second sheet with perspective to ¼ inch scale and rendered at will.

April 25.—Menu cards for C. A. C. banquet.

The officers are: President, G. W. E. Field; vice-president, G. W. Stone; secretary, H. C. Carrel; treasurer, Arthur Stedman. The initiation fee is \$1, and the annual dues \$12.

#### CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

A special meeting of the Exchange was held on April 29 in respect to the death of Mr. J. B. Sullivan. The following preamble and resolution was adopted as the expression of the Exchange:

The Builders' and Traders' Exchange of Chicago, in special meeting assembled, while humbly bowing to the will of the Divine Creator, deeply deplores the loss of one of its oldest and most respected members and former director, Mr.



J. B. Sullivan, who was called from his labors on earth Saturday, April 27, to appear before the grand tribunal in the world above, a transition which all mankind must sooner or later experience.

A gentleman of the highest order, a true friend, esteemed by all who knew him, noted for his liberality, honest dealings and unswerving integrity, Mr. Sullivan was one of the first to become a member of this Exchange, and from that time to the day of his death has participated actively in everything which tended to elevate and improve the Exchange in every way possible. The library of the Builders' and Traders' Exchange contains priceless volumes donated by him for the instruction and good of his fellow men.

In the death of Mr. Sullivan this Exchange has sustained a severe blow, and it unites with his sorrowing family and large circle of friends in sincerely mourning his sudden demise, relying on the wisdom of our Heavenly Father in thus depriving us of one we held most dear. Therefore, be it

*Resolved*, That this Exchange tender its heartfelt sympathy to them in this their hour of sorrow.

*Resolved*, That the secretary be directed to spread a copy of this feeble expression of this association on the records of the Exchange and furnish the family of the deceased with a copy of the same.

*Resolved*, That the president appoint a sufficient number of the members to act as pall-bearers.

In accordance with the resolution the following were appointed pall-bearers: George Tapper, W. A. Wells, C. A. Moses, M. Benner, George C. Prussing, T. E. Courtney, James John, M. Madden, Frank C. Schoenthaler, M. Campbell, D. V. Purington.

The funeral services were held at the Church of the Holy Name, and the interment at Calvary Cemetery, a large number of the membership of the Exchange attending.

#### WESTERN ASSOCIATION OF ARCHITECTS.

The board of directors of the Western Association of Architects will meet in Chicago at 2 P.M., Monday, May 20. All communications to the board should be sent to Secretary Patton before that date. The principal business will probably be the counting of consolidation ballots.

#### BUFFALO SOCIETY OF ARCHITECTS.

The present officers of the Buffalo Society of Architects are: President, E. B. Green; secretary, H. L. Campbell; treasurer, R. A. Bethune; first vice-president, G. J. Metzger; second vice-president, W. S. Wicks.

#### ARCHITECTS AND ENGINEERS SOCIETY OF PORTLAND, OREGON.

A meeting of the architects and engineers of Portland, Oregon, was held in that city, January 5, and an association formed. Its membership will consist of practicing architects and civil engineers. The officers are: President, Cleveland Rockwell, C. E.; secretary, R. A. Habersham, C. E.; treasurer, Justice Krumbein, architect.

#### THE SKETCH CLUB OF NEW YORK.

A sketch club, presumably of draftsmen, has been organized in New York City, under the title of The Sketch Club of New York. The secretary may be addressed at No. 57 Broadway.

#### ARCHITECTURAL LEAGUE OF NEW YORK.

The regular meeting and dinner of the League was held on Monday, May 6, at Morello's, 4 West Twenty-ninth street.

Through the courtesy of Mr. H. J. Hardenbergh the "Dakota" apartment house was opened for inspection in the afternoon from 4 to 6 o'clock. Mr. C. A. Rich read a paper on "A Run Through Spain."

The Executive Committee announced that they had leased the second floor of the house No. 47 West Forty-second street as rooms for the League.

The House Committee, in accordance with suggestions received from the Executive Committee, desired to ask from the members of the League such subscriptions to the fitting and furnishing of the rooms of the League as the members are willing to make. Subscriptions to take the form of furniture, hangings, rugs, books, professional periodicals, framed pictures, drawings, etc. Anyone desiring to make such gifts are directed to send a list of them to any member of the committee at his earliest convenience.

The new members elected since March 1, 1889, are G. Bonanno, E. F. Caldwell, Stockton B. Colt, W. W. Kent, Francis C. Lathrop, N. C. Mellen, Albert Parfitt, W. B. Van Ingen, Herbert J. Westell, George E. Wood.

### Mosaics.

MR. MYRON H. CHURCH, architect, of Chicago, has opened an office at 711 Royal Insurance Building.

MR. A. J. BLOOR, the genial secretary of the American Institute of Architects, who has been for the past two months at the Bermudas, expects to return shortly, his health being greatly benefited.

On May 6, Mr. T. E. Kilburn, of the firm of Ellerker & Kelburn, of Melbourne, Australia, passed through Chicago on his way to England. Mr. Kelburn expects to remain in England several months.

THE official report of the third annual convention of the National Association of Builders has been received from Secretary Sayward. The volume contains 210 pages of printed matter, and is well printed. It is the complete verbatim report of the Philadelphia convention.

PROFESSOR W. EISEN, of Chicago, is filling commissions from architects and others for his high-class etchings on pearwood. The pearwood is imported in thin sheets, on which Professor Eisen burns his designs with heated needles, the shades of color depending on the degree and depth of the burning. The instinct of an artist and a skillful hand to execute are shown in the professor's work. The pictures produced have the mellow richness of etchings in sepia. The surface of the wood after being etched is finished with a fine varnish, so that dust and dirt are as easily removed as from glass. The professor is at work on several interiors, etching on the panels and other woodwork, pictures and designs appropriate to the different rooms.

This treatment is very effective and is less expensive than wood carving, the price being \$5 a square foot for designs not excessively elaborate. In some cases designs are furnished by architects, and in others the professor works from his own designs. Professor Eisen may be addressed at 1047 North Halsted street.

THE interior of the new building erected by the Murphy Varnish Company, of Newark, from the plans of J. H. Lindsay, architect, has just been completed by finishing the decoration and placing the stained glass. This work has been executed by Messrs. J. & R. Lamb, of New York, the color scheme having been carried out by Mr. F. S. Lamb. The glass has been done in venetian and opalescent, the general treatment being a rich arrangement of delicate tones of color and jeweled work. The most elaborate part of the work is in the president's office and in the large staircase window. In the latter, the date of the establishment of the company and the monogram of the firm have been artistically introduced in connection with ribbons and foliated work.

R. W. MAXTON, for many years identified with the building business, and now secretary of the Bruschke Furniture Company, will in future have his office at 43 Van Buren street, where this company will have a full line of wood mantels, tiles and grates. This firm stands among the first for fine interior mill work, wood mantels and cabinet work. They are now putting up a large apartment building of twenty flats on the corner of Thirtieth street and Indiana avenue, and have also the contracts for erecting the Berkshire and the Devonshire apartment buildings. Max Meyer's residence, 2009 Prairie avenue, is just being completed by the same firm, who had the whole building under contract. They have also completed another residence by the same architects (Burnham & Root), together with several others.

### Our Illustrations.

Houser Building, St. Louis, Mo.; Charles K. Ramsey, architect. Residence for Judge Jamieson, Lake View, Ill.; J. L. Silsbee, architect, Chicago.

Residence of James V. Ridgway, Hinsdale, Ill.; Patton & Fisher, architects, Chicago.

House for Mr. Allan, Montreal, Canada; Rotch & Tilden, architects, Boston, Mass.

House for Mr. Chamberlain, Chester, N. Y.; E. G. W. Dietrich, architect, New York.

Residence at Williamsport, Pa., for Mrs. James M. Camble; Albert W. Dilks, architect, Philadelphia.

Residence of John W. Langley, Ann Arbor, Mich., additions and alterations by Irving K. Pond and Allen B. Pond, architects, Chicago.

Design for an entrance to a city house, awarded first place in St. Louis Architectural League competition, designed by J. W. Longfellow.

School at Park Side, Hyde Park, Ill.; M. L. Beers, architect, Chicago. Its exterior is pressed brick, with cutstone and terra-cotta trimmings, galvanized iron cornice, slate roof and tin deck. The size of the building in width is 84 feet, and in depth 77 feet 6 inches; height from the ground line to the top of main cornice 40 feet. The building contains four schoolrooms on each floor, wardrobes, retiring rooms and principal's office. The basement is divided into fuel, furnace, recreation and dry-closet rooms. The interior of the building is finished in selected sycamore, with hardwood floors. There are only four rooms and halls finished at present, and the cost of the building to date is about \$32,000. The building is planned for four brick set furnaces, and ventilated by means of large flues with stack heaters at the base of each. The entrances are finished in selected red oak. All glass in the entrance doors, and in the doors between the schoolrooms and halls is of polished plate. The staircases have maple treads.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for Photogravure, edition.)

The Hercules Building, Chicago; W. L. B. Jenney, architect. Full description elsewhere in this number.

Six full page plates of the court house and jail buildings at Pittsburgh, Pa., the late H. H. Richardson, architect. The views shown are as follows: Court house, perspective view of exterior, on Grant and Diamond streets, looking east; rear view of court house with jail in foreground, taken from Convent Hill, looking west; main entrance to court house on Grant street; bridge between court house and jail, across Ross street; interior of court house; approach to grand staircase from vestibule; upper main landing of grand staircase, showing arches.

### Business Outlook.

OFFICE OF THE INLAND ARCHITECT,  
Chicago, May 8, 1889.

So far as a summary can be approximately made of building operations this year, the indications are that more building is under way than at this time last year. In some cities and small towns there is less. Taking the country all through, it seems a safe conclusion to arrive at that more work is being done. In country districts, especially, there is greater activity. Small manufacturing towns are taking up, and in agricultural localities a great deal of work is under way. Railroad building is not being pushed as rapidly as last year, but there is an abundance of time yet, and good authorities predict a very active summer and fall. The dullness in the iron trade is very marked. Lumbering operations, so far this year, show that the distribution of lumber of all kinds is fully up to last year, and that prices are a little higher, taking all kinds into account. In some sections of the country there is a probability of a drouth, and low water prevails. Fires are anticipated, and lumbermen are somewhat apprehensive of a scarcity of logs. Builders and contractors who have a large amount of work on hand are buying stocks liberally lest some unforeseen event or accident may create a



scarcity. The lumber trade is holding its own in all markets. Poplar is scarce and advancing. Hardwoods are in excellent demand for interior finish. Throughout the South the mills are very generally well engaged. In the North there is but little complaint of inactivity. The demand for all kinds of building material is strong. Manufacturers of supplies have contracts ahead for from three to six months. There is an abundance of money for building operations, and investments are doing well. There is no boom in real estate, and none likely. Manufacturers in a good many cities are obliged to select sites in the suburbs on account of the crowded condition of the cities. The price for manufacturing sites even in suburban localities has advanced. Steel and wire nails are in good demand throughout the West, but in the East trade is sluggish and prices are low. Manufacturers of gas fixtures enter the season with an abundance of stocks. All kinds of material for interior decoration and finishing are in abundant supply. Sash, doors and blinds rule low because of the heavy stocks which manufacturers have maintained, and all attempts at hardening prices prove ineffectual. Financially and commercially the coming eight months are certainly as bright as could be expected. There is no scarcity of money in ordinary business channels, but outside of ordinary channels there is a need of money which may result disastrously to those immediately concerned. The expanding needs of the country call for a more satisfactory monetary system than we possess. Commercial failures continue at about an even rate. The agricultural conditions of the country are all favorable, and large crops are promised in all sections. But few labor strikes are threatened, and it is probable that no serious conflicts with labor will occur till the contemplated enforcement of the eight-hour rule next spring.

### Synopsis of Building News.

**Allegheny City, Pa.**—Architect F. C. Sauer has prepared plans for a pressed brick building, trimmed with granite, for Mrs. M. Sauer; cost \$10,000. Also for a double brick and stone trimmed dwelling for R. C. Musgrove; cost \$9,000.

**Carthage, Ill.**—Architect Geo. W. Payne has prepared plans for a two-story, ten-room schoolhouse, 60 by 82 feet; construction brick; cost \$80,000.

**Charleston, S. C.**—There were 191 permits granted in the city during 1888, aggregating an estimated expenditure of \$416,720. They were for twelve stores, three warehouses, one school building, twenty public buildings and 154 dwellings. In addition to the new buildings additions and alterations were made to 141 old buildings at an aggregate cost of \$98,855, making a total expenditure in buildings of \$515,575.

**Chicago, Ill.**—Architect A. H. Hettich: For Alfred Schirmer, two-story residence, 25 by 44 feet; brick, front basement cutstone; above basement French tile, cutstone trimmings; inside finish cypress and hardwoods; mantels, furnace heat, etc.; cost \$6,000. For P. K. Ryan, Chicago Lawn, two-story and attic frame residence, 26 by 25 feet; cost \$2,500.

Architect T. V. Wadskier has plans for a \$16,000 residence.

Architects Fromann & Jensen: For G. Ammon, two-story and attic residence, 25 by 61 feet; cost \$10,000.

Warren Springer will build an eight-story and basement warehouse on Canal street; pressed brick, stone and iron; cost \$50,000.

Architect S. S. Beman, Pullman Building: For George M. Pullman, two-story basement and attic house, 60 by 70 feet; pressed brick, steam heat, hardwood; cost \$30,000.

Architect D. J. Warren: For Dunlap Smith, four-story and basement store and flat building, 57 by 100 feet; pressed brick and stone; cost \$26,000. For Mr. Olinger, store and flat building, 150 by 155 feet; cutstone basement, brick above, hardwood finish; cost \$30,000.

Architect H. W. Heuhl: For Mrs. Roberts, four-story store and flat building; pressed brick and stone; cost \$50,000.

Architect Jno. Addison: For M. Flint, four-story apartment building, 42 by 128 feet; cost 40,000.

Architect John Long: For Brackett & Barrett, Rochester, Ind., three-story hotel, 90 by 165 feet; brick and stone; cost \$40,000. For F. G. & C. E. Springer, eight two-story and basement houses, 40 by 192 feet; cost \$24,000.

Architect H. S. Jaffray: For F. W. Smith, two-story and basement residence at Hyde Park; cost \$5,000. For W. F. Pfuderer, two-story and basement residence; cost \$5,000.

Architect C. C. Miller: For Gen. Fitz Simons, two-story dwelling, 40 by 80 feet; cost \$40,000. For Butler Lowry, three dwellings, Lawndale; cost \$8,000.

Architect Oscar Cobb: For Masonic Temple Company, at Duluth, five-story theater, 75 by 150 feet, brick and granite, fireproof, steam, elevators; cost \$150,000.

Architect L. Masters: For T. J. Leonard, three three-story store buildings, 62 by 60 feet; cost \$14,000. Three-story flat building, 55 by 45 feet; cost \$10,000. Two-story flat building, 50 by 40 feet; cost \$8,000. Three-story flat block, 52 by 50 feet; cost \$6,500.

Architect J. E. Scheller: For E. S. Neben, San Jose, Cal., frame residence, 40 by 50 feet, slate roof, electric work, speaking tubes, steam heat, hardwood, interior finish; first-class sanitary work; cost \$12,000. For C. W. Knapp, row of three-story buildings, 65 by 60 feet, pressed brick and terra-cotta trimmings; gravel roof, stained glass, electric work, etc.; cost \$15,000. For C. Kahler, two-story flat building, 25 by 60 feet, brick with Bedford stone trimmings, gravel roof, electric work, furnace heat; cost \$4,500. For Jacob Kramer, five detached stone houses, front trimmed with Bedford and Mitchell green sandstone, double plate and stained glass, electric work, steam and furnace heat, hardwood finish and everything modern and first-class; cost \$35,000.

Architects Dewey & Newberry: For C. P. Coggeshall, two-story flat building, brick front with stone trimmings, galvanized iron bay, etc.; cost \$4,500. For C. C. Collins, two-story and basement addition to residence, howling alley in the basement, library first floor, art gallery second floor; library trimmed in oxidized silver; cost \$10,000.

Architect W. D. Cowles: For Seth Riford, four two-story flat buildings; cost \$20,000; two-story house, 21 by 45 feet; cost \$15,500. For Barry Bros., three two-story houses, 58 by 70 feet; cost \$16,000.

Architect George Beaumont: For T. E. Mathews, Ravenswood, two-story framed dwelling, 25 by 42 feet; cost \$2,300. For H. W. Myers, two-story and basement store and flat building, 62 by 64 feet, brick, stone basement; cost \$18,000. For W. J. Meyers, store and flat building, 125 by 60 feet, brick and stone; cost \$30,000. For E. D. Adeock, two-story and basement dwelling, 25 by 80 feet, brick and stone, modern construction; cost \$6,000. For Dr. Stewart, Mansfield, Ohio, two-story and basement dwelling, 22 by 60 feet; brick and stone; cost \$6,000.

Architects Edbrooke & Burnham: For H. E. R. Wood, Hyde Park, frame dwelling on stone foundation, 28 by 45 feet; cost \$5,000. For J. B. Countryman, two-story store and office building, 50 by 80 feet; cost \$15,000.

Architect C. J. Warren: For the Walsh estate, three two-story and attic houses, 60 by 70 feet; cost \$20,000.

Architect C. M. Palmer: For Potter Palmer, two four-story dwellings, 46 by 70 feet; cost \$24,000. For same, house, 27 by 70 feet; cost \$12,000. For Mrs. N. Palmer, four-story dwelling on Lake Shore Drive, 45 by 80 feet; cost \$35,000. For Mr. Fisher, two-story and basement dwelling; buff sandstone, hardwood finish, furnace heat and modern conveniences; cost \$11,000. For D. P. Stewart, three-story residence, 25 by 70 feet; buffstone, hardwood interior, furnace heat, etc.; cost \$12,000.

Architect J. Huber: For P. Peterson, two-story, basement and attic residence, 25 by 62 feet; cost \$6,000.

Architect C. A. Weary: For D. Louis, three-story store and flat building, 26 by 85 feet; cost \$11,000. For J. L. Campbell, four two-story and cellar houses, 72 by 38 feet; cost \$13,000. For H. L. Childs, two three-story and cellar and flat buildings, 51 by 75 feet; cost \$20,000. For John Eisner, two-story and cellar residence, 30 by 60 feet; cost \$17,000. For J. L. Campbell, six four-story and

cellar store and flat buildings, 82 by 125 feet; cost \$60,000. For A. W. Eaton, two-story and cellar house; cost \$8,500. For E. J. Lewis, two three-story flat buildings, 48 by 60 feet; cost \$14,500. For Mrs. M. J. Frawley, two two-story and cellar flat buildings; cost \$12,000.

Architects Ostling Bros.: For O. Neilson, four-story and basement flat building, 28 by 78 feet; cost \$12,000. For C. Hultgren, four-story and basement flat building, 25 by 52 feet; cost \$9,000.

Architect T. N. Bell: For First Baptist society, Englewood, church building, 98 by 128 feet, stone exterior, steam heat, etc.; cost \$40,000. For S. Hoffman, three-story store and flat building, 25 by 50 feet; cost \$8,000. For K. H. Bell, frame residence; cost \$4,000.

Architect William Strippelmann: For Vanderhost & Campbell, three four-story store and flat buildings, 62 by 50 feet, brick and stone, steam heat, etc.; cost \$20,000. For H. J. Vanderhost, two-story and basement building, 25 by 100 feet, brick and terra-cotta, hardwood interior finish, steam heat, etc.; cost \$16,000. For D. Zemonski, three-story and basement store and flat building; cost \$10,000.

Architects John Wolcott & Son: For Park Avenue M. E. society, church, 57 by 120 feet, brownstone, furnace and steam heat; cost \$40,000. For J. C. Barker, three three-story dwellings, 50 by 70 feet; cost \$15,000. For Emil Jerke, three-story flat building, 23 by 70 feet; cost \$10,000. Masonic Hall, Joliet, Ill., four stories, 30 by 110 feet, limestone exterior, steam heat, etc.; cost \$50,000.

Architect G. W. Maker: For Horace Phillips, Seattle, W. T., dwelling. For E. Kendrick, Buffalo, N. Y., frame dwelling; cost \$6,000.

Architects Wilson, Marble & Lamson: For Mrs. J. H. Chambers, two three-story and basement dwellings, 50 by 68 feet; stone fronts; cost \$30,000. For Thomas Scoven, two two-story flat buildings, 22 by 68 feet; cost \$9,000. For W. H. Pruyn, four three-story and basement dwellings, 20 by 70 feet; cost \$36,000.

Architects Schaub & Berlin: For John Peters, two-story store and flat building, 41 by 76 feet; cost \$7,000.

Architects Flanders & Zimmerman: For E. M. Horton, two-story flat building, 25 by 60 feet; cost \$7,000.

Architect John J. Kuhn: For Charles Jacob, three-story flat building; stone front; modern improvements; cost \$10,000.

Architect A. L. Schellenger: For J. Richardson, frame residence; oak interior; cost \$5,000.

Architects Charpie & Fry: For J. M. Allen, ten brick cottages; cost \$14,000.

Architects Cole & Dahlgren: For Joseph Farndrich, three-story flat building, 22 by 70 feet; cost \$6,000. Four frame dwellings; cost \$15,000.

Architect G. O. Gurnsey: For K. & E. McDonald, alterations to residence; cost \$20,000.

Architect W. L. B. Jenney is engaged on plans for a sixteen-story office building, to be erected south of Van Buren street, between Dearborn street and Third avenue. It will have two fronts of similar design, one on Dearborn street and the other on Third avenue. The interior will be entirely of rolled steel, with brick, terra-cotta and fireproof partitions. The exterior will be of granite, pressed brick and glass. The first floor will be constructed for stores, the upper floors for offices.

Mr. Jenney has just closed the contracts for a five-story addition to the Union League Club House, to cost \$40,000.

Architect Myers: For T. Demaris, Hyde Park, three-story flat building, 25 by 55 feet; St. Louis pressed brick, trimmed with Dunleith variegated sandstone; cost \$5,000. For F. C. Hieronimus, Hyde Park, two-story residence, 33 by 76 feet; brick and stone; hollow walls throughout; hardwood interior; steam heat and first-class modern conveniences; cost \$10,000.

**Cincinnati, Ohio.**—Reported by Lawrence Mendenhall:

Cincinnati goes along at a pace highly satisfactory, making substantial progress architecturally, and the season will close with many fine structures, added to those already built. One pleasing condition of things is the fact that our people, except those "too awfully too-too," have patronized home talent. When talent is appreciated, it acts as an incentive to do good work. The demolition of the buildings, to make way for the addition to the City Hall, is going rapidly along, while the main building is beginning to show up in grand style.

The wife of Architect James W. McLaughlin has been honored by having a full-sized bust sculptured by Mr. Mundhenk, of our city. It is full of expression, and a good likeness of a lady who is a worthy helpmate of a master architect.

Messrs. Crapsey & Brown have more work than they care to report now, but among other plans on the boards are the following: For J. B. Beall, of Hamilton, Ohio, a frame house of ten rooms, with modern improvements, costing \$3,500.

For Mt. Sterling, Kentucky, an opera house of pressed brick, three stories high, occupying 60 by 100 feet. It will contain all modern improvements, and cost \$12,000.

At Carlisle, Kentucky, they will build for the Carlisle Christian Church, a church edifice of brick, small but complete, to cost \$5,000.

Mr. A. C. Nash, the architect, has completed the plans for the new Good Samaritan Hospital which the Sisters of Charity propose erecting, along with a chapel, on the site of the old one on Lock street. There will be an entrance by a cut on a level with the street leading to an elevator, by which the patient can be carried to the upper floor. The chapel will be three stories high, and will be located between Emery's building and the old building, and back of the chapel the four-story new hospital will be erected. On the first floor there will be several new wards, operating-rooms in front, pay-patient rooms, sewing and packing rooms, rooms for laundry, engine and boiler, and on Baum street a large smoking-room, with four large fireplaces. The main building will be divided by a corridor. On the second story there will be bath and kitchen rooms, a surgical ward and chapel. Connection will be established to the old pavilion, and between there will be an apartment for the administration of anesthetics. The third story will contain an operating-room, large medical ward and rooms for pay patients. The roof of the chapel comes to the fourth floor, which will contain a dormitory for the Sisters and operating-rooms.

Architect Louis Pickett reports the following: For C. H. Curtis, a pressed brick store building, with flats above store; iron front, plate glass, pine finish and tin roof; cost \$4,500.

Also, for Mrs. Maggie Bender, a store and flat building, of pressed brick, slate roof, terra-cotta, etc.; cost \$7,000.

Rieg & Marty report a brick town hall and engine house at St. Bernard, Ohio, size 60 by 82; brick, stone trimmings; two stories and tower; stable fittings, mansard roof; cost \$15,000. Also additions and alterations to a Catholic schoolhouse; cost \$7,000.

W. W. Franklin is drawing plans for H. P. Sherrick, Avondale, Ohio, for a frame residence of twelve rooms, with modern improvements; cost \$8,000. Busy on other plans.

William Stanton Robinson has drawn plans for Mr. George E. Scott, Price Hill, city, for a frame dwelling of twelve rooms; pine finish, wood mantels, stained glass, slate roof, laundry fixtures, etc.; cost \$4,000.

Thornton Fitzhugh, architect, reports the following: For L. G. Johnston, Glendale, Ohio, a frame residence of eight rooms, pine finish; mantels, slate roof. For J. F. Burchenal, Esq., of same place, a residence of similar size and style. For O. J. Moore, Delhi, Ohio, a frame residence with plastered gables, slate roof, containing ten rooms. Office building for the King Powder Company, at King's Mill, Ohio; frame and shingle, one story, four rooms, shingle roof. Mr. Fitzhugh's patient, painstaking work is telling on him in the shape of plenty of plans.

Emil F. Baude, architect, is preparing plans for a large stable for a Mr. Peter Schaller; stone trimmings, brick, hardwood finish, stable fittings, tin roof and all modern improvements in stable construction; cost \$7,000. Also a residence for F. Kane, Riverside, Ohio; frame, slate roof, pine finish, iron mantels, plumbing and other conveniences; cost \$3,500.

S. S. Godley, architect, is busy on plans for H. A. Mental & Bro., city, for a store and flat building; brick, tin roof, bathroom and laundry outfits, pine finish, mantels, etc.; cost \$4,500.

John H. Ball, architect, has drawn plans for a Mr. T. B. Collier, Avondale, Ohio; stone, slate roof, tiling, hardwood finish and mantels, stained glass, electric work, etc.; cost \$10,000.

**Columbus, Ind.**—Architect C. F. Spunell: For T. A. Thompson, two-story dwelling, 35 by 60 feet, frame, shingle roof, iron cornice, bathroom, mantels, grates, wainscoting, softwood finish; cost \$3,500. For Mrs. E. T. Brevort, two-story frame residence, 30 by 40 feet, wood mantels, wainscoting, grates, stained



glass, etc.; cost \$3,000. For German Lutheran society, at Seymour, Ind., church edifice, one-story, 45 by 85 feet; brick and stone, slate roof, iron columns, galvanized iron cornice, wood altars, frescoing, cathedral glass, pipe organ, ash finish and wainscoting and all modern church improvements; cost \$15,000.

**Detroit, Mich.**—Architects M. L. Smith & Son: For Hutton Bros. & Co., two-story factory building, 50 by 80 feet; brick, tin roof; cost \$3,200. For Wm. C. Claxton, three two-story dwellings, 26 by 40 feet; frame, shingle roof; cost \$4,800. For Dr. Clawson, one-story hall building, 41 by 90 feet; brick, gravel roof; cost \$5,000. For M. A. Edwards, two-story dwelling, 30 by 48 feet; brick, with stone trimmings, slate roof; cost \$5,000.

Architect Geo. Meyers: For Mr. Williams, three-story double dwelling, 33 by 42 feet; brick, with stone trimmings, gravel roof; cost \$4,500. For Michigan Steel Co., one-story foundry building, 135 by 150 feet; cost \$8,000.

Architect A. C. Varney: For Robert Donaldson, two-story dwelling, 32 by 67 feet; brick, with stone trimmings, slate roof; cost \$8,000. For same party, two-story double dwelling, 42 by 58 feet; cost \$6,000. For A. C. Varney, two-story dwelling, 25 by 48 feet; brick, with stone trimming, slate roof; cost \$4,000. For G. W. Pack, two-story double dwelling, 40 by 58 feet; brick, with stone trimming, slate roof; cost \$6,500. For L. Depew, two-story dwelling, 26 by 64 feet; brick, with stone trimming, slate roof; cost \$5,500. For same party, two-story dwelling, 26 by 63 feet; frame, slate roof; cost \$6,000. For Dr. C. J. Lundy, three-story office block, 22½ by 78 feet; brick, with stone trimmings, gravel roof; cost \$8,500.

Architects Hess & Roseman: For the Evans estate, three-story dwelling, 22½ by 65 feet; brick, with stone trimmings, gravel roof; cost \$5,500. For same, one-story hall and saloon, 40 by 58 feet; brick, gravel roof; cost \$6,000. For Clarke estate, three-story hotel, 58 by 162 feet; frame, gravel roof; cost \$12,000. For Kershmer & Dixon, two-story dwelling, 27 by 50 feet; brick, slate roof; cost \$5,000. For Alex. S. Kinner, two three-story dwellings, 40 by 56 feet; brick, gravel roof; cost \$8,000.

Architects Spier & Rohns: For Mt. Hope society, church building, 51 by 59 feet; frame, shingle roof; cost \$7,000. Two-story dwelling, 33 by 68 feet; brick, with stone trimmings, slate roof; cost \$7,000.

Architect Henry Englebert: For Polish R. C. society, church building, 98 by 138 feet; brick, slate roof; cost \$40,000. For block of four stores, three stories, 105 by 38 feet; brick, gravel roof; cost \$8,000.

Architects Mason & Rice have completed the plans for the First Presbyterian church; it will be 88 by 165 feet, of the Romanesque style of architecture and constructed of brownstone; the cost will be about \$80,000. Also plans for the remodeling of the First National Bank at a cost of \$6,000; a story will be added to the rear part of the building for the Michigan Mutual Life Insurance Company and a new vestibule of marble, hardwood and plate glass placed in the front of the bank. Also completed, the plans for Mrs. Ellen Hammond's new block of stores and offices; it will be six stories and contain four stores on the first floor, the upper floors being devoted to offices; cost about \$65,000. Also finished drawings for an \$8,000 double residence for James Hanley; a stone residence for Rev. Fr. Ryan, Amherstburg, Ont., to cost \$6,000; an \$8,000 frame residence for Y. F. Blake, Grand Rapids; a \$10,000 residence for D. W. Minshall, and a \$30,000 residence for Joseph Strong, Terre Haute, Ind.

Architects Van Leven & Preston are making plans for a three-story brick and stone parish schoolhouse for St. Mary's Church society, Jackson, to cost \$10,000, and a two-story residence for E. H. Brown, West Superior, Wis., to cost \$3,500.

Architect Albert E. French has finished plans for a \$1,000 brick engine house for the Monroe water works.

Byron Morton will build a \$2,000 addition to his residence, 162 Lafayette avenue.

John M. Cattel will erect two two-story frame dwellings, to cost \$4,700.

Nutt & Clark will soon begin the erection of a block of brick stores and flats, to cost \$8,000.

**Dubuque, Iowa.**—Architects Heer & Sons have prepared the plans for a two-story and basement brick school building, 60 by 32 and 34 by 32 feet in size, to cost \$5,000.

Architect E. Hyde: Plans for new Julien Hotel, 94 by 113 feet; five stories, brick and stone, all modern hotel equipments; cost \$100,000. For power building, five stories, 34 by 113 feet, brick and stone, for wholesale purposes; cost \$15,000. For W. Francis, of Independence, Iowa, two-story and attic frame residence; cost \$12,000.

Architect F. D. Hyde: For B. M. Harger, alterations and additions to residence, common brick, shingle roof; wood mantels, plate and stained glass, gas fixtures, electric work, furnace heat, bath and laundry outfit, hard and soft wood finish, etc.; cost \$4,000.

**Duluth, Minn.**—The prospect for a very active building season is very flattering. Work will be begun or continued on a number of expensive buildings which will carry up the aggregated expenditure of the season to a high figure. Among them may be named the new union depot on which \$150,000 will be expended; on the Henderson Building which will cost \$225,000 when completed, \$50,000 will be expended; \$200,000 on the Chamber of Commerce. Among the costly buildings that are sure to go up this season may be named the Boeing Building, to cost \$40,000; the Sutphin Building, to cost \$25,000; a Catholic seminary, to cost \$50,000; the Lincoln school building, to cost \$50,000; two railroad freight depots, to cost \$50,000, not to name several others approximating these figures.

The M. E. Church society has purchased a site and will at once erect a \$3,000 church building.

Architect O. G. Trophogen is preparing plans for a block of brick stores for Munger & Markell, to be erected on the site of the opera house recently burned. Also has prepared plans for a five-story building for H. P. Wieland to cost about \$40,000. The first story will be built of brownstone and plate glass, while the upper stories will be of red pressed brick with terra-cotta and brownstone trimmings. Also has prepared plans for the New London town hall (bids now being taken), frame, 26 by 52 feet; cost \$10,000. Preparing plans for addition to city "lock-up," to cost \$3,500.

M. J. Davis will erect an \$8,000 residence; plans already prepared.

Plans have been prepared for a block of seven large stores to be erected by a Minneapolis party. It will have a frontage of 170 feet and be two stories high, built of brick and cost \$25,000.

F. D. Day will erect a two-story business building. It will be 25 by 60 feet in size and cost \$10,000.

Captain C. S. Baker has let the contract for erecting a two-story brick residence on Twentieth street between Fifth and Sixth avenues east for \$12,000.

The Presbyterian Church society has raised \$15,000 toward the erection of their church edifice and as soon as \$25,000 is raised will commence the work of building.

Architect McMillan has returned from Chicago, bringing with him the plans for the Masonic Temple and Opera House. The building will be six stories high, the first three stories built of brown sandstone, and those above with red pressed brick with sandstone trimmings. Iron fretwork and stained glass will be used in profusion in the decoration.

**Fredonia, N. Y.**—Architects Curtis & Archer report: Office building, fireproof, brick and terra-cotta, four stories, iron beams and staircase, hollow tile floors, electric light, asphalt roof, 60 by 120; to cost \$75,000; for National Transit Company, Oil City, Pa. Schoolhouse, brick, two stories and basement, slate roof, galvanized iron cornice, eight rooms, blackboard, etc., to cost \$12,000. Residence, frame, two stories, bathroom outfit, outside, wood cornice, pine finish, wood mantels; \$3,000; for William H. Terrant, Mayville, N. Y. Residence, frame, two stories, pine finish; \$2,500; for S. W. Reynolds, Forrestville, N. Y. Residence, remodeling of, O. T. Schombloom, Bradford, Pa.

**Grand Island, Neb.**—Architect H. T. J. Fuehrman: For F. T. Marsh, business block, 44 by 100 feet; common ornamental and enameled brick, with stone and terra-cotta; tin roof; galvanized iron cornice; architectural iron work; plate and stained glass; iron beams and columns; iron store fronts; English tiling; elevators, etc.; cost \$150,000. For P. Dumbley, three-story hotel building, 66 by 66 feet; pressed and ornamental and enameled brick and terra-cotta; galvanized iron work; iron beams and columns and stairs; annunciators; bathroom outfits; boiler; dumb waiters; passenger elevator, frescoing; plate and ornamental glass; grates; hardwood finish; steam heat; laundry fixtures; wood mantels; marble work and tiling; office fixtures and railings; plumbing; ranges; French and German tiling, and modern improvements; cost \$15,000.

**Hutchinson, Kan.**—Architect A. B. Howitt: For S. H. Sidlinger, residence, brick and stone, shingle roof, architectural iron work, plate and cathedral glass, wood mantels, grates, marble work and tiling, electric work, bath outfit, sanitary plumbing, softwood finish, etc.; cost \$3,500.

**Kansas City, Mo.**—The building boom may be said to be now on. All the architects are busy, and permits are being taken out by the score daily. The prospect is that this will be a phenomenal year in building.

Architects Hogg & Rose have prepared plans for a \$25,000 residence for Jas. Fairweather. Also plans for a \$20,000 Presbyterian church building; brick and stone, slate roof, galvanized iron cornice, ornamental glass, furnace heat, etc. Also three-story frame building for George Hoffman; cost \$3,000. Bank building at Hannibal, Mo.; brick, cutstone, terra-cotta, steam heat, plate glass, safes, vaults and all modern conveniences; cost \$14,000. For John Blumgrist, Wyandotte, Kan., \$9,000 livery stable.

Architects James & James are engaged on plans for a \$250,000 building for the Board of Trade at Toronto, Canada; seven stories, sixty apartments, Romanesque style, brick, cutstone, architectural iron, slate roof, steam heat, all modern improvements. Also for a depot for the K. C. & I. Rapid Transit Company; cost \$7,500; flat roof covered with composition, stove heat, etc.

Architect Harry Kemp has prepared plans for a \$12,000 residence for R. W. Hocker; two stories, modern style, brick and cutstone material, architectural iron, gable roof covered with slate, wood cornices, wood mantels, furnace heat, plate and ornamental glass, annunciators, electric bells, interior decorations, etc.; already under way.

Architect M. Hughes has prepared plans for a \$3,000 brick store and dwelling for D. Kilby. Also modern residence for Noonan Bros., contractors. Preparing plans for seven-story store and office building for John McLeavy; brick, cutstone, terra-cotta, iron beams, ornamental iron work, plate glass, steam heat, passenger and freight elevators, electric work, etc.; cost \$75,000.

Architect F. C. Crum has prepared plans for a three-story store building for N. T. Price & Co.; brick, cutstone, terra-cotta, architectural iron, flat composition roof, plate glass; cost \$6,000. Also an apartment building for O. B. Gunn; five stories, fifty-six rooms, 43 by 120, brick, cutstone and terra-cotta, architectural iron, flat composition roof, wood mantels, tile work, steam heat, plate glass, gas fixtures, annunciators, electric apparatus, dumb waiters, passenger and freight elevators, frescoing and all modern improvements.

Architect Jas. Bannon has prepared plans for a \$28,000 residence for Jas. H. Ogelby; brick, terra-cotta and cutstone, flat slate roof, wood cornices, ornamental iron, wood mantels, furnace heat, stained glass and all modern improvements.

Architects Vrydagh & Shepard have prepared plans for a \$10,000 M. E. church building, 80 by 130 feet; Gothic style, cutstone, marble steps, wainscoting, etc., hot air heat, art glass, electric light, interior decorations, church fixtures.

Architect J. C. Stewart has finished plans for a \$35,000 Catholic church; brick, cutstone, slate roof, copper cornices, steam heat, art glass, church fixtures. Also drawing plans for an \$18,000 residence for B. McMecham; brick, cutstone, flat composition roof, marble mantels, furnace heat, plate glass and modern improvements.

Architects Resch & Braecklin have prepared plans for a \$110,000 eight-story hotel building for M. Geist; Romanesque style, brick, cutstone and terra-cotta, architectural iron, flat composition roof, wood and slate mantels, marble work and steps, tile work in floors, steam heat, plate, stained and ornamental glass, electric light, electric bells, dumb waiters, passenger and freight elevators, fireproofing, counters and office railings. Also made plans and let contracts for \$4,500, for a store for G. T. Harwood; brick and cutstone, composition roof, plate glass. Also for \$12,000 a store and tenement for Mrs. L. C. Dunley; brick, composition roof, architectural iron, plate glass. Also a \$7,000 store for Julius Herald; three stories, eighteen rooms, Queen Anne style, brick, cutstone and terra-cotta, architectural iron, composition roof, stove heat, plate glass. Also store and tenement for Mrs. Luck; cost \$9,500; three stories, sixteen rooms, brick and cutstone, terra-cotta, architectural iron, flat composition roof, wood mantels, plate, stained and ornamental glass. Also family hotel for Chas. A. Mueller; cost \$65,000; five stories, twelve rooms, classic style, brick and cutstone, terra-cotta, architectural iron, flat composition roof, stone cornices, wood mantels, marble work, steam heat, plate glass, electric light, dumb waiters, passenger hydraulic elevators, fireproofing, counters and office railings. Also drawing plans for two houses; cost \$4,000; for Bellan & Foster; brick and cutstone, slate roof, wood mantels, furnace heat, etc.

**Little Rock, Ark.**—Architect C. L. Thompson has prepared plans for a brick veneered two-story residence, 40 by 70 feet, for Dr. C. Watkins; cost \$6,000. For Mrs. M. L. Turner, two-story brick veneered residence, 40 by 70 feet; cost \$4,500.

**Madison, Wis.**—Architect O. J. Williams: For Mrs. L. Meredith, two-story residence, 26 by 50 feet; frame; shingle roof; wood mantels; grates; gas fixtures; bath, etc.; cost \$3,000. For Mrs. E. C. De Moe, similar residence; cost \$2,500.

**Oshkosh, Wis.**—Architect Waters is preparing plans for a number of buildings at the Wauwata Soldiers' Home, which will be constructed during the summer. Among them will be a Soldiers' Home proper in the shape of a hotel, built of wood, and costing in the neighborhood of \$10,000.

**Pittsburgh, Pa.**—The strike among the building trades that is now on will seriously interfere, if not wholly destroy the promise of a healthy building season. Already its influence is being felt in the stoppage of sketches for projected buildings and plans under way.

Architects Bickel & Brennan report: Plans for eight brick dwellings, at a cost of \$18,000.

Architects Longfellow, Alden & Harlow have completed plans for the Bradock First M. E. Church society, of church building. It will be built of buff fire brick; cost about \$22,000.

Architect F. C. Sauer has prepared plans for brick residence, with stone trimmings, for Thomas Lynch, at Greensburgh, costing \$12,000. Three-story business block, brick, for Mrs. Joseph Haber, at McKeesport; cost \$18,000. Pressed brick dwelling, with granite sills, for Mrs. Margaret Sauer; cost \$9,500. Pressed brick dwelling, with granite sills, for D. F. McAfee, at Edgewood station, P. R. R.; cost \$9,000. Brick double dwelling, with stone trimmings, for Robert C. Musgrove, Alleghany; cost \$9,000. Frame Church of the Sacred Heart, at Dawson, Westmoreland county.

Architect J. T. Steen has prepared plans for ten brick dwellings to be erected on the property of the Protestant Orphan Asylum, six will be three stories and four two stories. Will be attractive and supplied with all modern conveniences. Also plans for twenty three-story houses, for J. S. Brown and others; brick and terra-cotta façades. Also store and flat building for Miss J. Magee.

Architect W. S. Fraser has made plans for three brick dwellings, for Captain Vandergrift.

Architect F. C. Sauer has prepared plans for the following buildings: Parish residence for St. Michael's R. C. Church; cost \$28,000. Business block for Mrs. Joseph Haber; cost \$8,000. Two brick dwellings for Mr. Joseph P. Urban; cost \$6,000. Brick dwelling for Joseph Dillon, McKeesport, Pa.; cost \$6,200. Brick dwelling for J. T. Biddle, Baum's Grove; cost \$2,950. Double brick dwelling for Messrs. Coyle & Stevenson. Frame church at West Newton, B. & O. R. R., for Rev. Wertz; cost \$2,200. Frame dwelling for Leslie Gloninger. Two frame dwellings for William Brigge. Also, frame dwelling for William Griffith.

**San Antonio, Tex.**—Architect Alf. Giles has prepared plans for a residence for C. Ogden; brick, terra-cotta, stone and architectural iron work; wood and marble mantels, tile flooring, annunciators, electric work, dumb waiters, speaking tubes, etc. For Mrs. Francis Vance, two-story residence, 60 by 65 feet; brick, cutstone and terra-cotta trimmings; tin roof, ornamental iron work, wood and marble mantels, hardwood finish, plate glass and all modern improvements; cost \$10,000. For Mr. Joske, two-story residence, 50 by 70 feet; brick, with cutstone and terra-cotta trimmings, tin roof, wood and marble mantels, hardwood finish, tile floors, etc.

Architect A. F. Beckman: Plans for a M. E. church, cutstone; cost \$6,000.

Architect G. R. Gordon: For B. Wright, three-story residence; cutstone, with terra-cotta trimmings, architectural iron work, wood and slate mantels, dumb waiters, electric work, annunciators, etc.; cost \$14,000. For Hass & Opheim, store addition, brick and cutstone; cost \$12,000.

Architect G. W. Lewis: For Hafft Bros., store addition; brick and stone, composition roof; cost \$16,000.



## Prepared Paint.

The Sherwin-Williams paint, prepared, is not a mixture put upon the market for the mere purpose of enriching the men who make it. It is made and sold to paint buildings with. It was made at the first with some understanding of the building material it was intended to cover; with some knowledge of the conditions of exposure to which it would be subjected; with a definite knowledge that it must be a preservative; with a clear conception of its service as a decorative element. With these objects in view, was it possible to use any but the best materials, the completest facilities, the highest order of talent, in its production? Is it possible that, with such good objects to attain at the commencement, and a phenomenally successful experience of nearly twenty years, during which time this product has constantly tended toward a higher state of perfection in all points of its adaptation to architectural uses, this paint is unworthy of the architect's consideration? Would it be policy for a company of honorable gentlemen, who have spent the most fruitful years of their lives in producing, perfecting, and marketing standard goods, who have made their products famous for excellence all over the continent, to sully their fair reputation by letting the quality decline? It would not. Such men have all the emulation for progress and perfection in their business that architects do in their profession. A good prepared paint is a decidedly important article for architects to seriously consider, and to include in their specifications. The Sherwin-Williams paint has advantages which will commend it.

## Trade Notes.

MESSRS. HEALY & MILLET are about to begin the frescoing of the Calvary Baptist Church, of Kansas City, Missouri, the stained glass of which they are also executing.

THE Peerless Brick Company of Philadelphia issued a four-card souvenir during the session of the third annual convention of the National Builders, just closed, in that city. It is a beautiful piece of typography, most artistically designed, and a credit to the company.

POTTS & ASCHE, plumbers, of Chicago, have secured the contract for the entire plumbing work of the Auditorium Building. The lavatory and toilet apparatus, closet, etc., will be furnished by the J. L. Mott Iron Works of New York and Chicago. This is one of the largest plumbing jobs awarded in this country, and the Mott goods will be used throughout.

WE call the attention of our readers to the "Boda Finish," illustrated on back page of cover. This invention has been lately introduced into Chicago, and is attracting much attention. It accomplishes in an easy and simple manner the difficult task of fastening interior finish to the walls without the use of nails. It is certainly a useful invention, and we predict that our readers will hear more of the Boda Finish in the near future.

THE contract for the entire frescoing and stained glass of the Auditorium Building has been awarded to Messrs. Healy & Millet, of Chicago. This is probably the largest order of its kind ever placed in this country, and the execution of the work will occupy a large number of men for fully six months. The preparation of the drawings will in itself occupy a number of experienced draftsmen, as it is intended to spare no efforts to make this work thoroughly in harmony with the strong characteristic of the building itself.

J. A. DUNKLE and S. F. Dunkle of Steelton, Pa., and J. B. Ewing of Harrisburg, Pa., have bought the entire plant and good-will of the Star Steam Heater Company, of Mount Joy, Pa., including the exclusive control of the patents. Large and commodious shops will at once be built at East End, Harrisburg, Pa., according to new plans especially adapted for their business. Three departments, namely, boiler making, machine and foundry, will be fully fitted out with the best machinery.

It is expected that the new shops will be completed some time during July, when they will immediately be occupied. Meanwhile operations have begun at the old shops in Mount Joy, where work is being pushed to its utmost to supply the demand. The address of the firm is Star Steam Heater Company, Harrisburg, Pa., or Mount Joy, Pa., until after August 1. H. H. Lindemuth, the patentee, has connected himself with the new company and will give the boilers his supervision.

A NEW "finish" for furniture, earthenware, stucco, in and out door woodwork—new, comparatively, to this country, is fast gaining a place in the material market, namely, "Aspinall's Enamel," manufactured by Aspinall & Co., of Peckham, London, England. This enamel is prepared in all colors and tints, is easily applied and produces the most satisfactory results. It will stand boiling water and climatic effects without perceptible change. It is worthy of investigation by architects, contractors and owners, as it presents interesting possibilities.

THE Barstow Stove Company, New York, Boston and Providence, Rhode Island, has issued a neat pamphlet, descriptive and illustrative of their well-known furnaces and stoves, heaters and ranges. The Barstow furnace, especially the iron furnace, has several peculiar features which on presentation necessarily attract attention; among them may be stated the lowness of altitude, fitting them for low cellar construction; large and deep ash pits, vapor pans, dust flues, sift grates, etc. The numerous testimonials that are a part of the pamphlet from prominent men who have had experience with this furnace in its use, attest that in addition to being an excellent heater, it is a very economical one.

UNQUESTIONABLY slate should be utilized in the covering and ornamenting of buildings more than it is, and there is a strong probability that in the near future it will be. Already there is a considerable forward movement in this direction in many parts of the country, and the time cannot long be deferred when, rather than the exception, its use will be the rule. Probably one of the best slates for roofing purposes on the market is known as the product of the York and Peachbottom Manufacturing Company, of York, Pennsylvania, and architects who may desire to introduce slate into their practice would do well to investigate the claims. It is vouched for by the supervising architect at Washington, D.C.

WE have just received from Hulbert Fence and Wire Company, St. Louis, Missouri, their twelfth annual catalogue. It is a handsomely illustrated pocket edition, and contains the newest designs for fencing modern residence, cemetery or public grounds, as well as the cheapest farm fenceings, with factory prices and freight rates to all parts of the United States. There are designs for ornate steel lattice, and tabulated prices for estimating the cost of office, bank, elevator and window guard work of wire or lattice. This company, among the most extensive manufacturers in their line, attribute their wonderful success to superior products, low prices and a liberal use of printers' ink, and can refer with pride to fences and ornate work adorning the finest hotels, cemeteries and private residences in every state and territory. They will cheerfully mail catalogues to all who write and mention that they are readers of this paper.

MR. SAMUEL CABOT, of Boston, Massachusetts, the inventor and manufacturer of the creosote wood preserving stains, has issued a beautiful brochure entitled, "From East to West," containing twenty-five perspective views of attractive modern first-class country and suburban residences, the product of as many leading architects scattered over the eastern states. The views are in imitation of water-color painting, and will be preserved by many architects for "suggestions" in kindred work. The object of the pamphlet is for a reminder of the excellence of the creosote stains and their adaptability to architectural work of the character

indicated; also of the "preservative" for brick-work, another specialty of the Cabot manufacture, as each of these articles have been used in beautifying the buildings shown, and that implies that their utility and excellence is indorsed by the architects whose names accompany the several perspectives.

## PROPOSALS.

### COLORADO STATE CAPITOL.

PROPOSALS FOR ROLLED BEAMS AND COMPOUND GIRDERS FOR THE COLORADO STATE CAPITOL BUILDING.

Sealed proposals for furnishing rolled floor beams and compound girders, in place, will be received by the secretary of the board of capitol managers until 1 P.M., mountain time, on Saturday, June 1, 1889, and then opened by the board.

The beams and girders are to be put in place in the building, as required, and properly fastened according to the plans and specifications, which are to be seen in the office of the superintendent, P. Gurney, at the capitol grounds, Denver, Col. The work of setting the first floor beams can be commenced as soon as the contract is signed.

The approximate quantities are: First floor beams, 115 tons; second floor beams, 109 tons; third floor beams, 99 tons; compound girders, 23 tons. Total, 346 tons, not including fish and angle plates, bolts, tie-rods, etc.

Proposals to be indorsed, "Proposals for Floor Beams and Compound Girders," and addressed to the secretary of the Board of Capitol Managers, postoffice box 2291, Denver, Col., or delivered at the office of the board, 44 Barclay Block, 1755 Larimer street.

By order of the board.  
DONALD W. CAMPBELL, Secretary.  
DENVER, Col., April 23, 1889.

### TO CONTRACTORS.

OFFICE OF THE EXECUTIVE COMMITTEE  
OF THE BOARD OF COMMISSIONERS,  
CUYAHOGA COUNTY  
SOLDIERS' AND SAILORS' MONUMENT,  
CLEVELAND, Ohio, April 29, 1889.

Sealed proposals will be received by the executive committee until 12 o'clock M., of Monday, May 20, 1889, from bronze foundries actually engaged in the business, for the bronze castings and other work pertaining thereto to wholly complete and set in place on the site selected in Cleveland, Ohio, when the committee directs, a group of Infantry soldiers called the "At Short Range," composed of nine figures, each about 7 feet 6 inches, mounted on a base or plinth 7 feet by 19 feet. Also a piece of artillery.

Bids to be indorsed "Proposals for Bronze Statuary," and addressed to the care of Levi F. Bauder, secretary of the Board of Commissioners, Wick Block, Cleveland, Ohio.

The plaster models can be seen at the studio on Rockwell street, Cleveland, in rear of City Hall, where a member of the committee will give any additional information if desired, or by addressing Levi T. Scofield, architect, 22 Case Building, Cleveland, Ohio.

Each bid to be accompanied with a written guarantee, signed by two responsible sureties. The Commissioners reserve the right to reject any or all bids, to accept or decline to close a contract as in their discretion they shall deem it their duty to do. The time for completion and delivery of castings mounted must be stated, and will be considered in awarding the contract. Bids will only be received for first-class standard statuary bronze and first-class workmanship.

Payments will be made monthly, retaining ten per cent until the contract is completed.

WM. J. GLEASON, Chairman.  
JAMES BARNETT,  
JAMES HAYR,  
J. B. MOLYNEAUX,  
LEVI T. SCOFIELD,  
Executive Committee.

### COLORADO STATE CAPITOL.

PROPOSALS FOR CAST-IRON COLUMNS FOR THE COLORADO STATE CAPITOL BUILDING.

Sealed proposals for furnishing 122 cast-iron columns, complete, in place, will be received by the secretary of the Board of Capitol Managers until 1 P.M., mountain time, on Monday, July 1, 1889, and then opened by the Board.

The columns are to be put in place in the building as required, and properly set according to the plans and specifications, which are to be seen in the office of the superintendent, P. Gurney, at the capitol grounds, Denver, Colorado. These columns will weigh, when complete, with bases, capitals, lugs, etc., about 210 tons, more or less, but bidders must make their own calculations.

All proposals must be accompanied by a small sample casting, showing the quality of material and workmanship that the bidder proposes to furnish, and with a certified check on a responsible bank for the sum of \$1,000 as a guarantee that the bidder will enter into contract to furnish and erect the columns at the prices bid, if the contract is awarded to him.

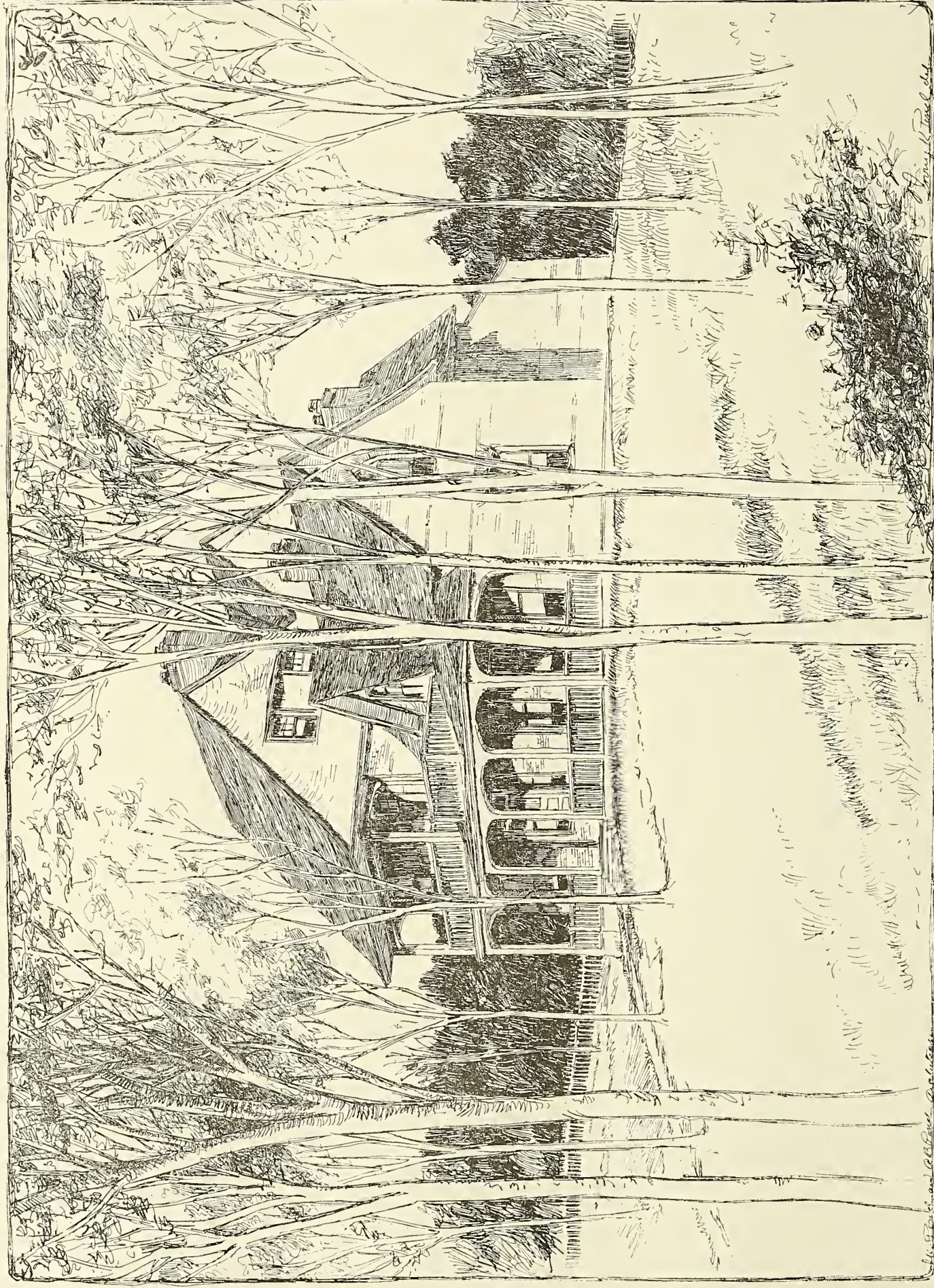
Proposals to be indorsed "Proposals for Cast-Iron Columns," and addressed to the Secretary of the Board of Capitol Managers, P. O. box 2291, Denver, Colorado, or delivered at the office of the Board, 44 Barclay Block, 1755 Larimer street.

By order of the Board.  
DONALD W. CAMPBELL, Secretary.  
Denver, Colorado, May 4, 1889.







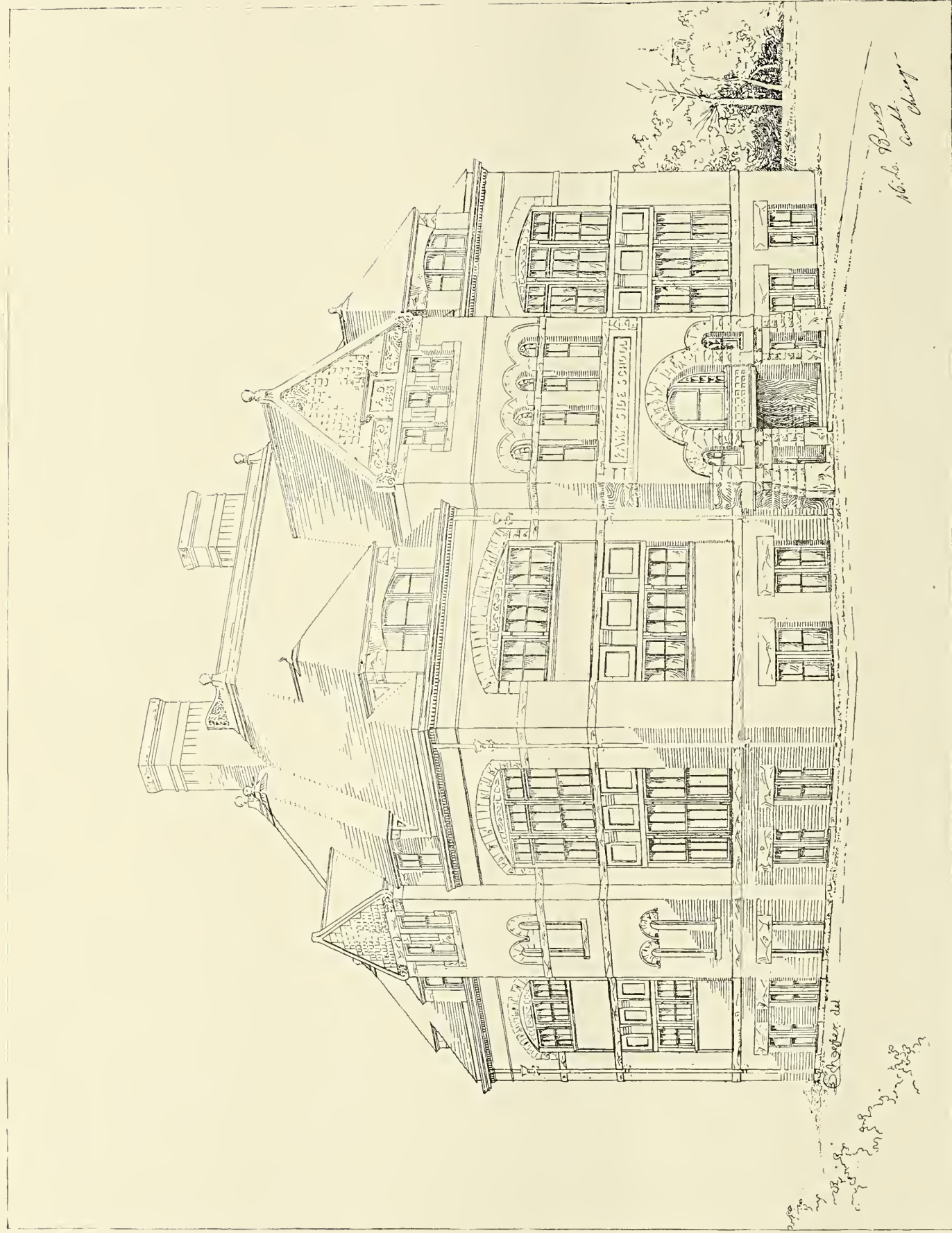


RESIDENCE OF JOHN W. LANGLEY, ANN ARBOR, MICH.  
ADDITIONS AND ALTERATIONS BY IRVING K. POND AND ALLEN B. POND, ARCHITECTS, CHICAGO.







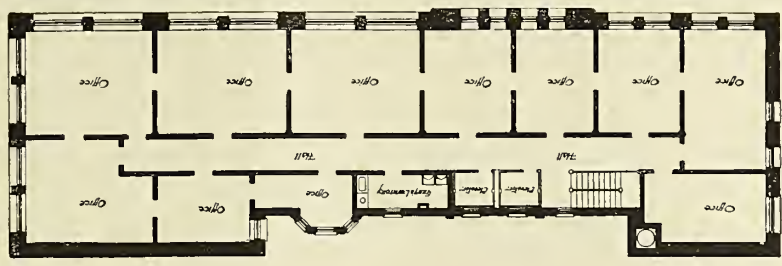
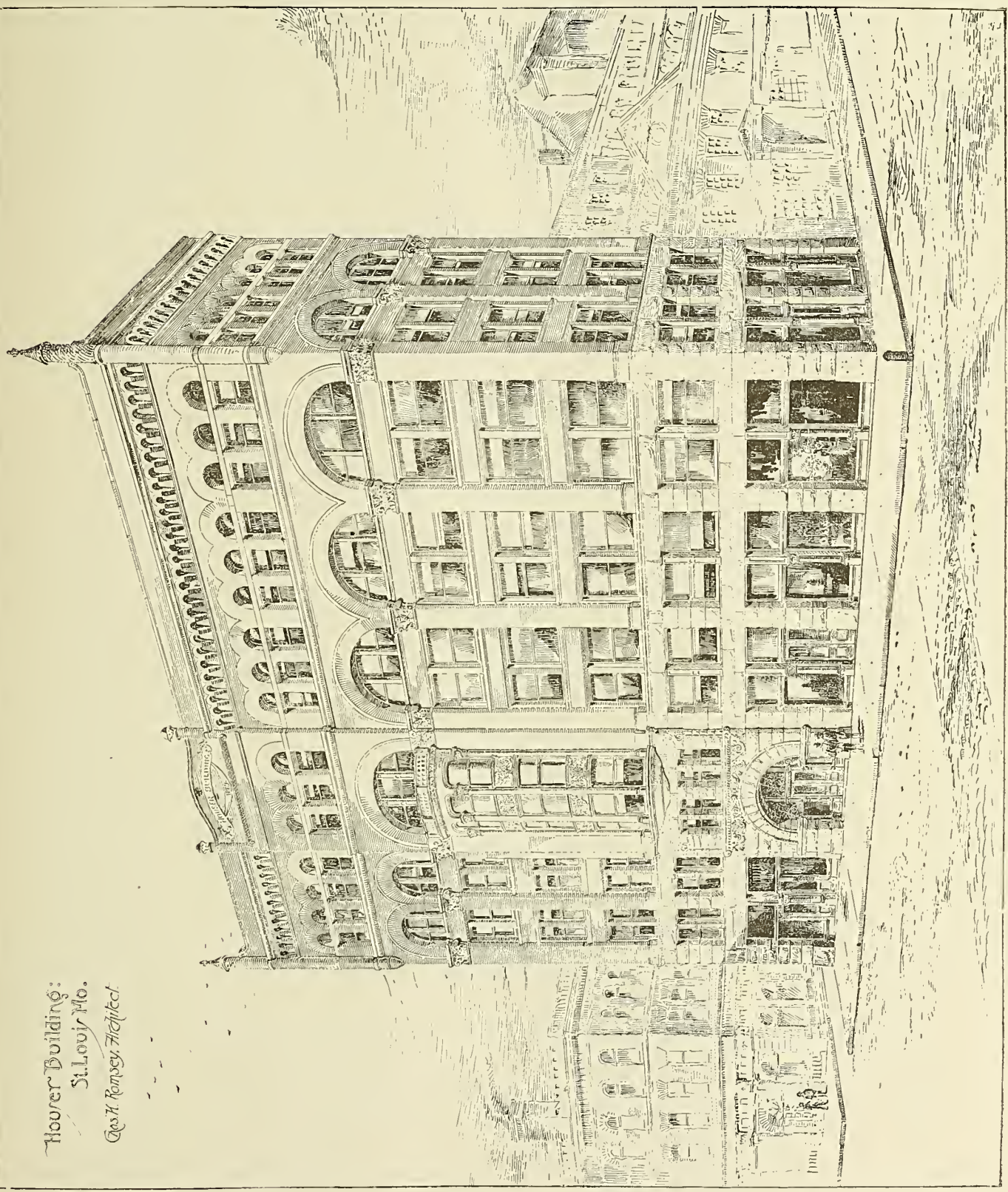


SCHOOL AT PARK SIDE, ILL.

M. L. BEERS, ARCHITECT, CHICAGO.



Houser Building:  
St. Louis Mo.  
Geo. H. Rempsey, Architect.

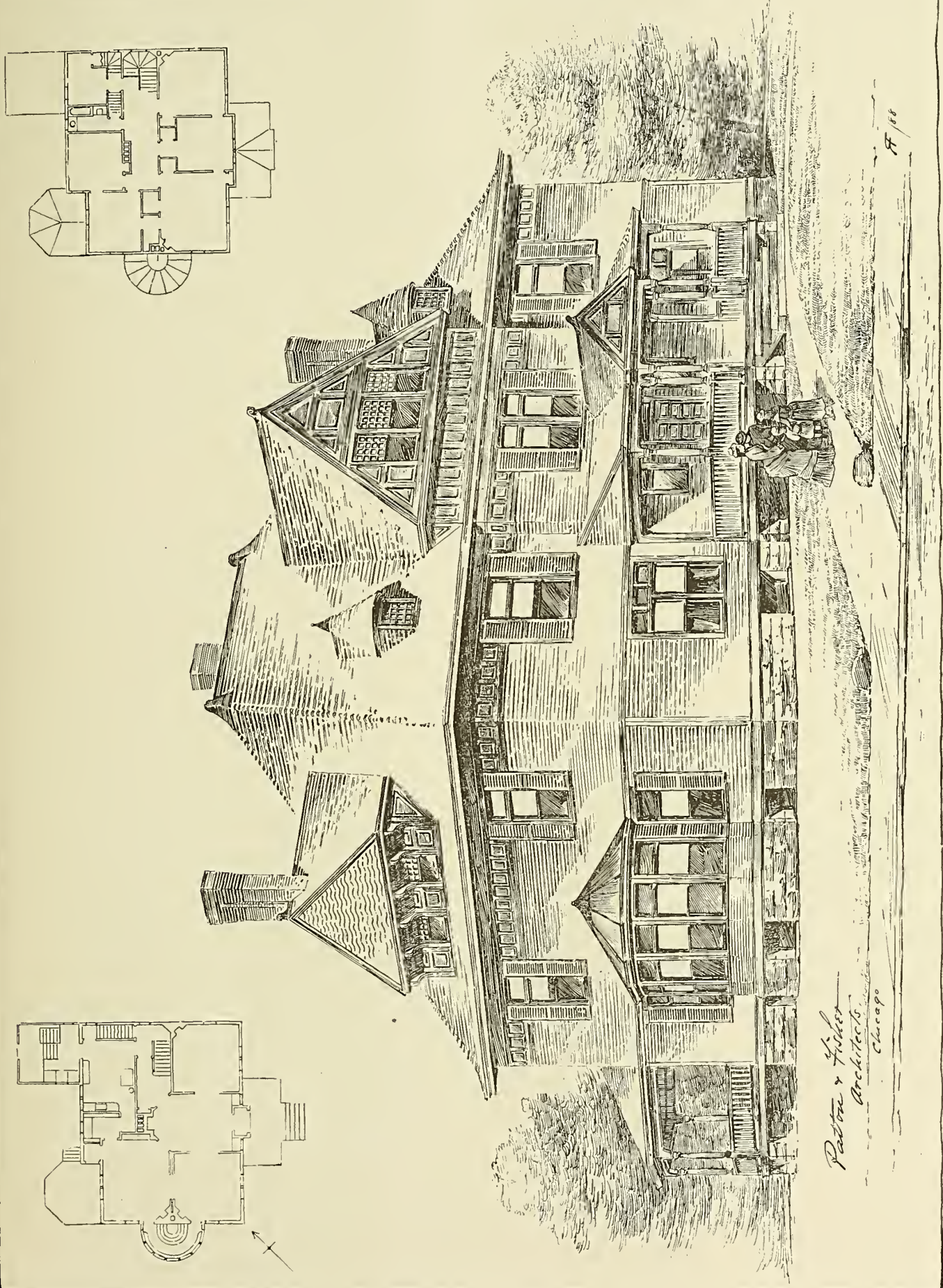


Second Floor Plan









RESIDENCE OF JAMES V. RIDGWAY, HINSDALE, ILL.  
PATTON & FISHER, ARCHITECTS, CHICAGO.

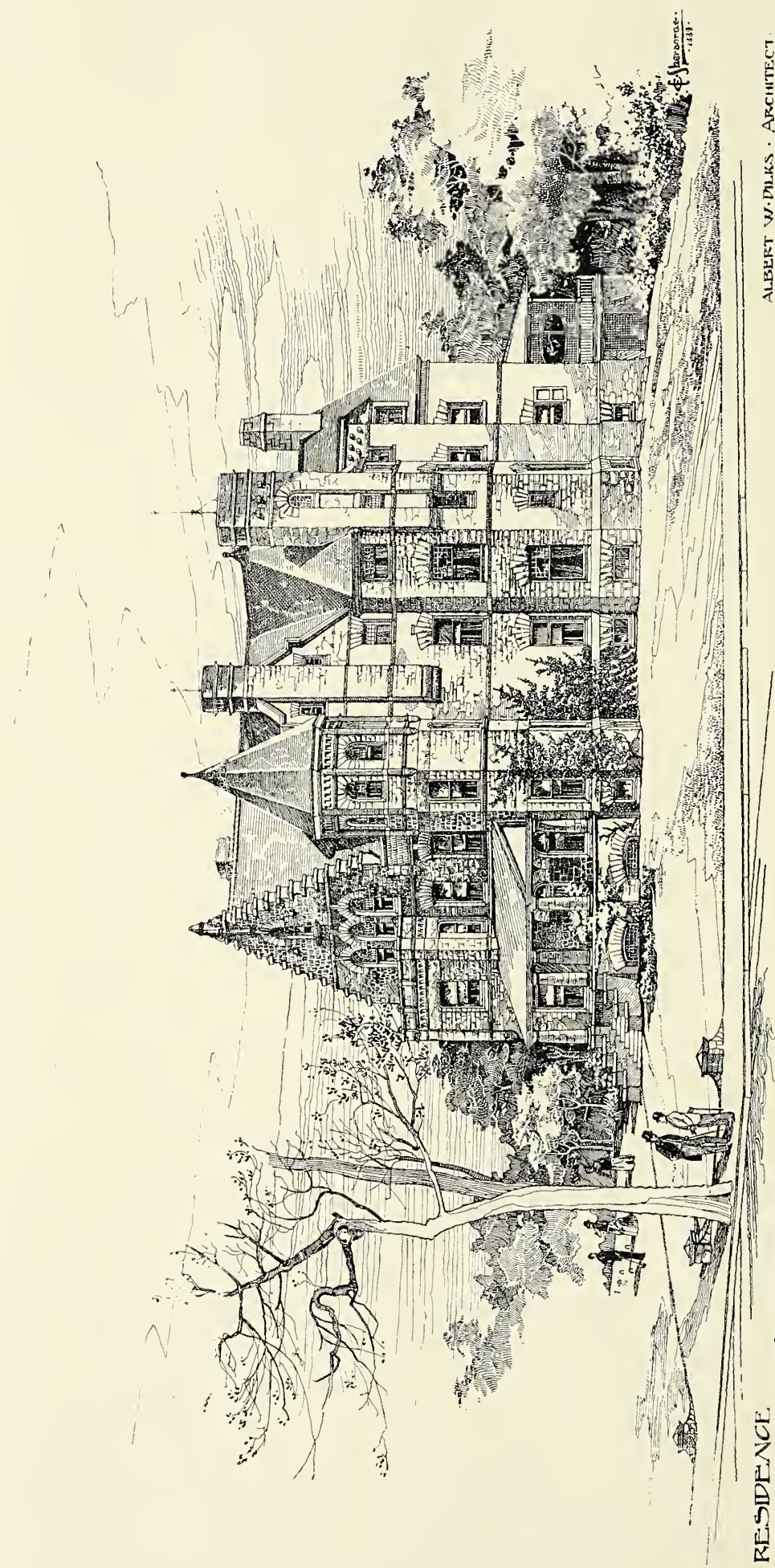












RESIDENCE  
AT WILLIAMSPORT, PA  
FOR MRS. JAS. W. CANALE

ALBERT W. DILKS · ARCHITECT.  
1001 CHESTNUT ST. PHILA. PA.



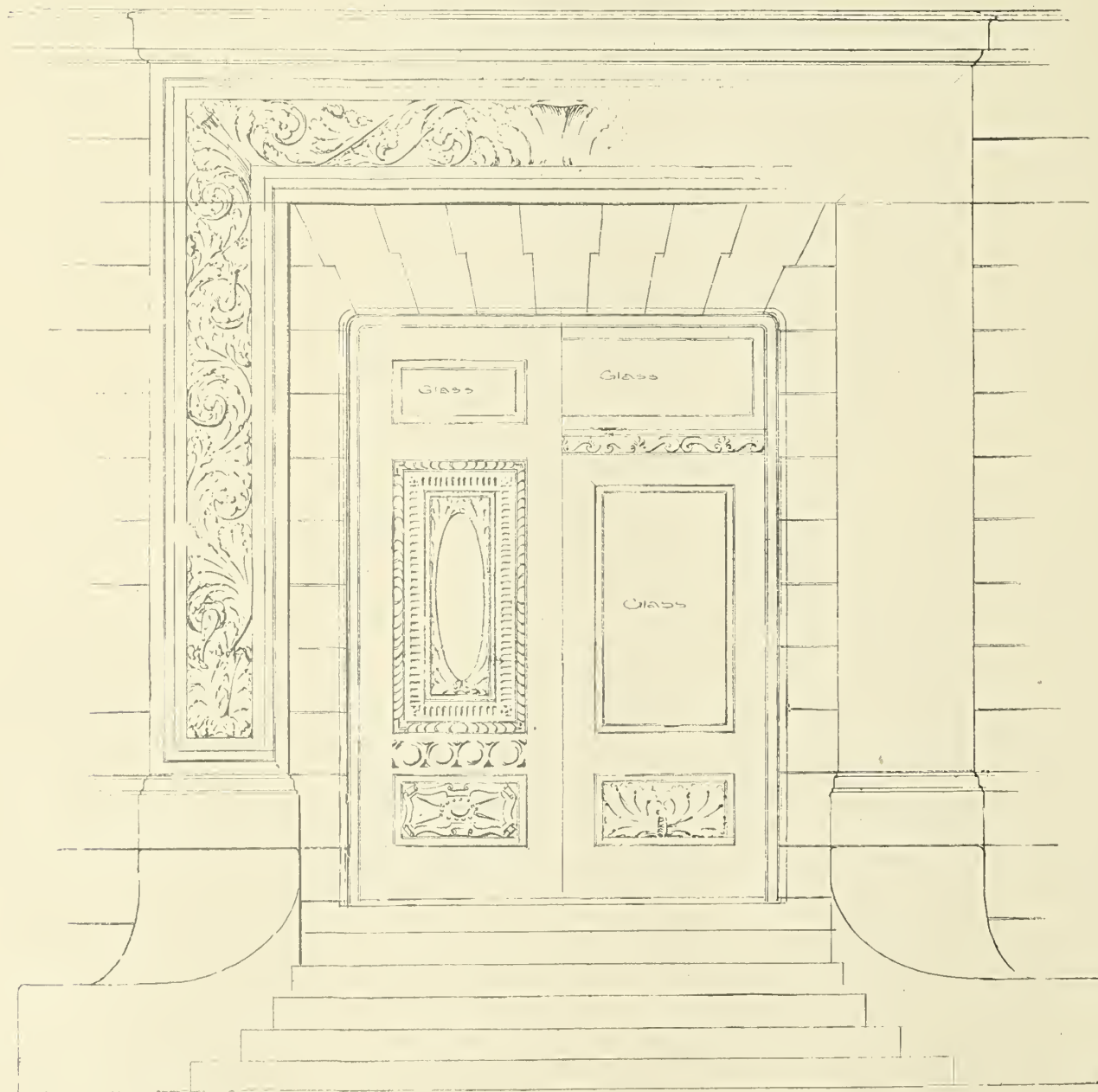






RESIDENCE FOR JUDGE JAMIESON, LAKE VIEW, ILL.

J. L. SILSBEE, ARCHITECT, CHICAGO.

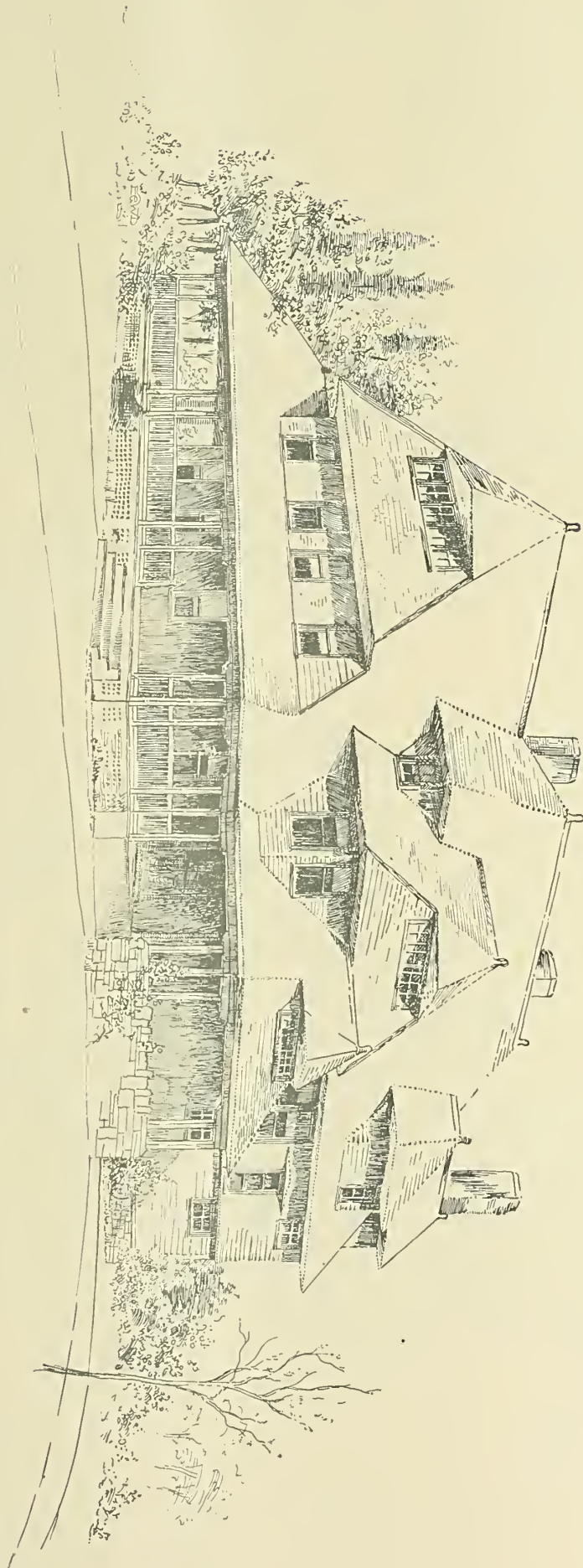


DESIGN FOR AN ENTRANCE TO A CITY HOUSE.

Awarded First Place, St. Louis Architectural League Competition.

DESIGNED BY J. W. LONGFELLOW.





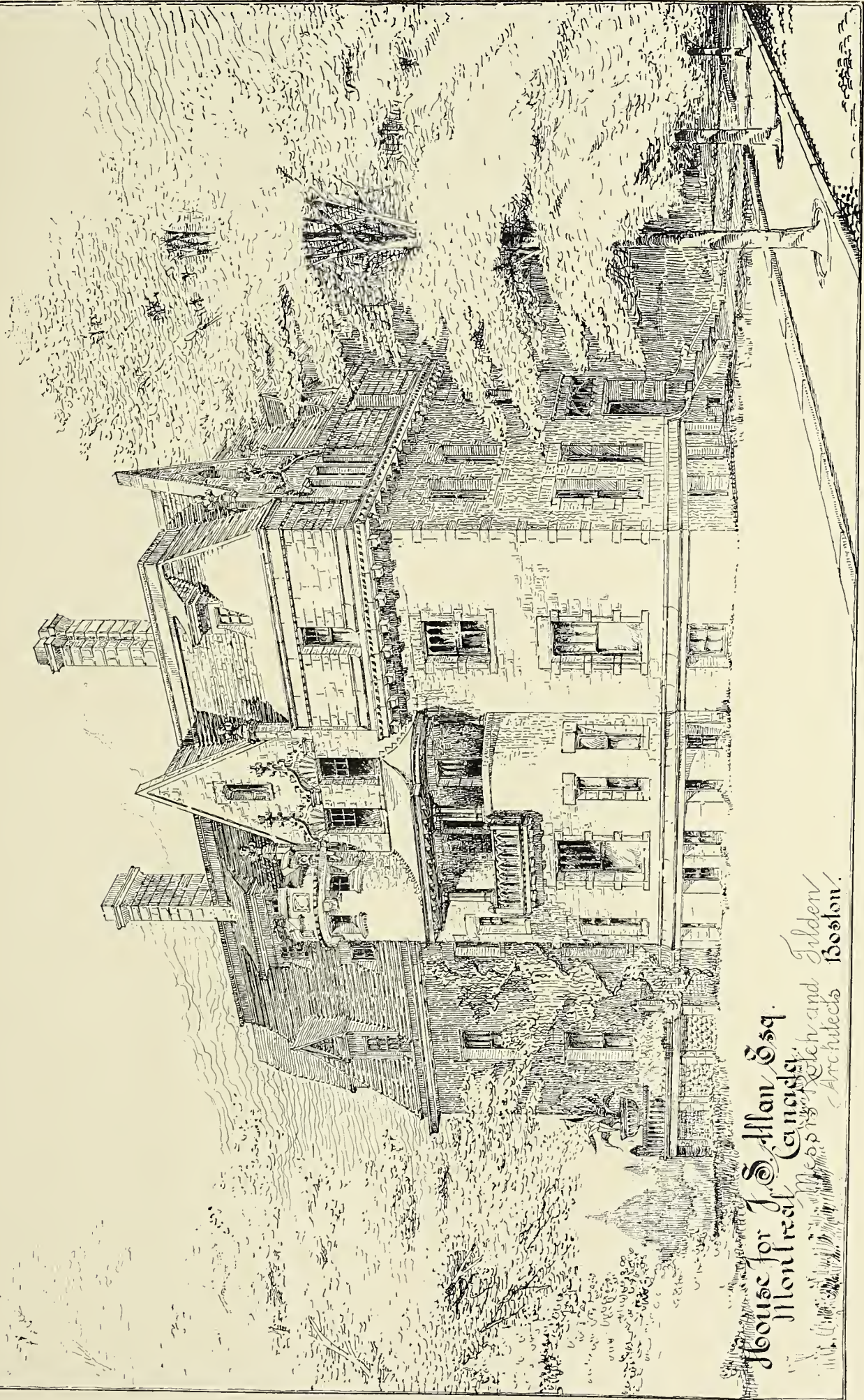
HOUSE FOR MR. CHAMBERLAIN, CHESTER, NEW YORK.

E. G. W. DIETRICH, ARCHITECT, NEW YORK.









House for J. S. Allan Esq.  
Montreal

Canada  
Messrs. Richardson and Tilden  
Architects Boston.









Entered at the Postoffice at Chicago as second-class matter.

A MONTHLY JOURNAL (WITH AN INTERMEDIATE NEWS NUMBER AND A PHOTO-GRAVURE EDITION) DEVOTED TO WESTERN INTERESTS.

VOL. XIII. No. 6.

CHICAGO, MAY, 1889.

Regular Edition, \$3.00 a Year.  
Photogravure Edition, \$8.00 a Year.

INTERMEDIATE NEWS NUMBER,

DEVOTED TO

ASSOCIATION AND BUILDING NEWS.

PUBLISHED BY

THE INLAND PUBLISHING COMPANY,

CHICAGO, ILL.

Our comments in the last regular number, regarding the St. Louis city hall competition, have received considerable criticism from several sources since the code adopted by the board has been published. Our statement and comment was made, as was stated, entirely upon the advertisement issued by the mayor, and we have nothing in that particular to retract, for while \$5,000 might be a fair premium for the successful competitor in an approved competition, to advertise to buy plans, as worded in the advertisement, was an entirely different matter. We are glad to see, however, that the code adopted, with a few exceptions, is a very fair competition document, and seems to indicate a desire upon the part of the commission to have a perfectly fair competition. However, we are informed that the code first issued is being revised, and the objectionable features eradicated; the full compensation according to the schedule of the Western Association will be offered, and Professor Ware, or some other well-known expert, chosen to adjudicate the drawings submitted. Competitions are an evil at best, and many of the best architects will not enter them under any consideration; but when they are recognized by the profession, it should be only upon the most positive evidence that the intention of the framers of the code, as well as the letter of that document, is absolutely fair and equitable. The commissioners whose names are attached to the code give strong hope that such this competition will be, they being, without exception, men of good standing and intelligence. We are assured that the board have taken advice upon the matter from architects

of standing, and the new code will be modeled largely upon that which governed the Kansas City Board of Trade competition. If this is carried out, the St. Louis city hall competition will be indeed notable in the history of the designing of public buildings.

On May 20, at 2 o'clock P.M., the Board of Trustees of the American Institute of Architects met at New York City, and at the same date and hour the Board of Directors of the Western Association of Architects met at Chicago to count the consolidation ballots of their respective associations. In regard to the vote of the Institute, the list of members required the most careful revision, but the final result showed the vote to be in favor of consolidation by a small number above the necessary two thirds. There were but nine votes in the negative. The result of the Western Association ballot we can give in full:

Total number of members.....	345
Necessary to choice .....	230
Vote in favor of consolidation.....	262
Vote against consolidation .....	3
Number not voting .....	80
Total .....	345

The revision of the list of members by both associations is extremely necessary before the consolidation convention, as the Institute, like the Western Association, has quite a number of members who have left the profession of architecture for other pursuits, and who are clearly not entitled to membership under the definition of an architect adopted to govern the membership in each association. These, without doubt, should be crossed off or placed upon the honorary membership list, so that the new association can start with a membership composed of architects in actual practice only.

The Western Association was represented by a full board, and a great deal of routine work was accomplished. General regret was expressed, however, that because of the long and tedious work of the Institute Trustees, necessitated by the long standing of its membership, the board was prevented from at once going into joint meeting to decide on time and place for holding the joint convention, which is now delayed indefinitely. It is probable, however, that the convention will take place at Cincinnati as recommended by the joint committee upon consolidation, and the date

The Necessity  
for Close  
Inspection of  
Membership.



will be early in October. The Western Association is to be congratulated upon its strong vote in favor of consolidation, particularly as the proposal to consolidate first came from the Institute. It has shown a breadth of purpose and decision of character among its members that argues well for the future of the consolidated association. It is particularly fortunate, also, that the Institute in the transformation will lose little, if any, of its identity; its traditions will be respected and its name perpetuated, while its influence will be broadened and strengthened, results which commend the policy of its president and other broad-gauge members who so ably aided in the development of the consolidation scheme. There should be no delay in the meeting of the two governing boards, and the place and time of meeting decided upon.

**A Correction  
of Statement  
Regarding Texas  
License Bill.**

Under a misapprehension, we stated in our last regular number that the bill providing for the examination and licensing of architects in the State of Texas had passed. We had carefully kept track of the progress of this bill for some time, being assured by the members of the state association having it in charge that there was little doubt of its passage. Our last letter to the secretary, however, was not answered, and the statement appearing in the press that the bill had passed, the announcement was written upon the basis of our latest information. We wired President Dodson, expecting an answer before the paper went to press. Too late, the following letter was received:

*Editors Inland Architect:*

I have been absent from home, and on my return find your telegram of 9th inst., in regard to our license bill, etc. Our bill was *not* passed. It was introduced in the house, and the committee reported it favorably, but from pressure of business, and the want of good intelligence, it was never called up, and so died in the cradle.

With legislators made up of log-house members on one side, and "2 by 4" lawyers on the other, who are afraid that something might be as respectable as they are, or *might* overshadow them, we will never get anything passed. What will be done in the future I cannot say.

Yours truly,

W. C. DODSON.

We make this full statement not as an excuse for publishing false news upon an important subject, but because the greatest care is taken to secure absolutely correct information, the distance from our place of publication not being deemed an excuse for not being fully informed upon affairs important to the architectural profession.

**Manufacture  
of Tinplate  
in the  
United States.**

Mr. O. W. Potter, of Chicago, to whom the credit is due of having manufactured the first steel rails made in this country, and thus by demonstrating that it could be done, establishing a commercial independence as significant as that of our political emancipation, has projected another manufacture that will mark another epoch in American industries. This is the manufacture of tinplate. As tin was first discovered in Cornwall before the Roman conquest, and these were probably the only mines known up to the present century, England acquired a prestige that has remained unbroken in this manufacture, though the output of the Cornwall mines has not increased in a number of years; mines in Sumatra and Australia have supplied the increased demand. Some years ago manufacturers in Pennsylvania attempted the making of plates, but the tax on the imported material was so great that they were forced to abandon the industry. Recently tin was discovered in the Black Hills, in Wyoming, and in such quantities that its importation is no longer necessary. As is well known, tin deposits are found in combination with as many different

metals as there are mines, but this American tin, whenever the proper apparatus is procured, will be mined at less cost than any other known. It is found imbedded in mica, and should easily be separated by rough crushing and washing, no smelting process being necessary. The project is in the hands of a combination of western rolling mill companies with unlimited capital. The time is not far distant when the United States may supplant England in the tinplate markets of the world.

**Illinois State Association of Architects.**

THE regular meeting of the Illinois State Association of Architects was held May 20, at Kinsley's restaurant, President W. W. Clay in the chair. The following members were present: W. W. Clay, Henry Ives Cobb, C. M. Palmer, O. J. Pierce, Clinton J. Warren, Robert C. Berlin, A. Druiding, H. M. Hansen, Smith M. Randolph, Normand S. Patton, George Beaumont, W. W. Boyington, L. D. Cleaveland, Frederick Baumann, Samuel A. Treat, Louis J. Schaub, Alfred Smith, L. J. Halberg, F. B. Townsend, W. W. Carlin, of Buffalo, president of the Western Association of Architects, and Sidney Smith, of Omaha, of the Board of Directors of that Association, were honored visitors.

After the usual lunch had been disposed of, the meeting was called to order.

Mr. Frederick Baumann called attention to the terms of the competition, and the general subject was commented upon rather than discussed, Mr. Clay stating that he had suggested, in conversation with the editor of *THE INLAND ARCHITECT*, that, instead of architects entering competitions, and making sketches for \$3,000,000 buildings for a possible, but not probable, chance of \$500 recompense, that it would be a better plan when an invitation to compete was received, to form a pool, each contributing \$50, and placing it in the hands of *THE INLAND ARCHITECT*. The editor could draw the lots, and the fortunate architect would receive the entire amount without trouble or expense. This was acknowledged a better plan than entering the usual form of competition.

After some further discussion, on motion of Mr. Baumann, a committee of three, consisting of N. S. Patton, Frederick Baumann and W. W. Boyington, was appointed to investigate the St. Louis city-hall competition, and protest against any unprofessional provisions that might be contained therein. It was subsequently suggested and adopted that this should include a circular letter lately issued by Salt Lake City.

Mr. Treat and Mr. Clay had been appointed to read papers upon houses of the better class, and Mr. Treat stated that he had asked Mr. Clay to represent him and make his paper doubly interesting. Mr. Clay read as follows:

W. W. Clay: It has often been remarked that, however a man may acknowledge himself incompetent regarding other affairs about which professional advice is usually taken, he does not readily admit, if he admits at all, his inability to direct the planning and construction of his dwelling house. He will present his physician's prescription at the pharmacy, pay for and take the dose upon which his lease of life may depend, without a question. He will submit to the dictation of his attorney in the matter of great importance, and even sit by when certain that his case is being jeopardized by what to him is palpable ignorance of the affair at hand, without a protest. But when he has a home to build, his individuality asserts itself and he seeks professional advice chiefly to obtain a skillful and artistic expression of his own idea that will be in harmony with his habits, his inclination and his culture. Thus it is, that, while the client may not exactly constitute himself an authority upon the subject, he nevertheless demands that the architect's interpretation of his wants shall not conflict with his own interpretation, or, at least, be not too much at variance with it.

The study of dwellings, and particularly dwellings of the better class, is then, to a great degree, accompanied by a study of human nature, and often in its most complicated forms, for when I refer to "a man" who is building a home I necessarily include the family which he represents. The psychological study of the architect is, therefore, something like the production of a typical photograph of a class, in which likeness after likeness is thrown upon the same spot until the general or dominant type and expression is obtained. Gathering up the elements of discord and weaving them into a harmony of arrangement, the skillful architect stamps the whole with an individuality of his own, truthful to, and recognized by, its subject, but as distinct and positive as any portraiture of Rubens, Van Dyke or Millet.

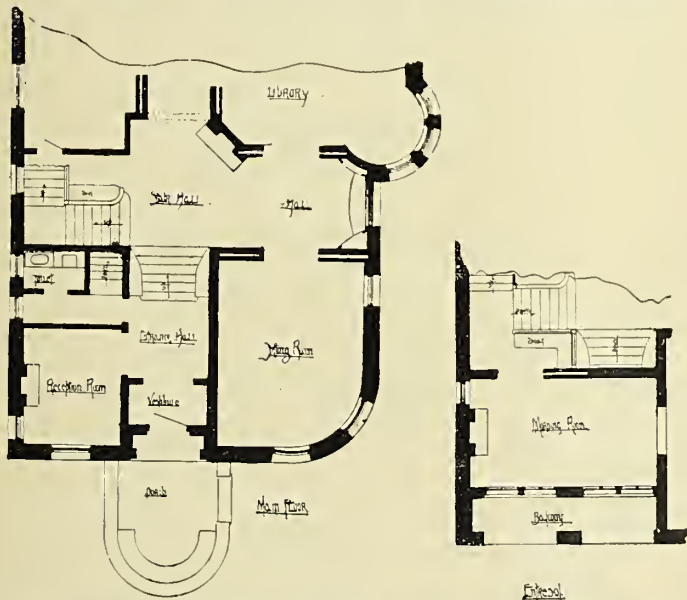
As a matter of fact there are certain fairly well-defined, although constantly developing, requirements of domestic convenience and social relation which serve as guides in planning a good house, and the solution of the dwelling-house problem may, in this country, at least, be said to be confined to three general types, each, however, with its variations and ramifications too numerous to mention: First, we have what is commonly known as the English basement house with a most convenient main entrance a step or two above the street grade. The main or parlor floor is reached by a full flight of inner stairs, while upon the entrance level there is usually a small reception room in front and a dining room in the rear, with the kitchen sometimes further back but generally in a sub-basement. Very few of these houses have been built in this city, although hundreds of them of extreme elegance and costliness are still to be found in the East.



The second style or type of house is what is known as the high-stoop or high-basement house. This, of course, you all recognize, with its long and somewhat dangerous flight of outside steps ascending to the main or parlor floor directly from the street; its dining room occupies the front portion of the basement, the floor being slightly below the grade line, the room and occupants exposed to the view of passers by. The kitchen is placed in the rear portion of the basement floor, and under the whole is usually a sub-cellar. This style of house may be considered the standard city house of the last generation, but having done long and faithful service, it now shows signs of diminishing greatness and has in some localities almost entirely disappeared. The third style, which may be considered the popular house of today, is what is known as the "low stoop" or low basement, and is distinguished, first, by its entrance to the main floor, which is usually within the limits of three or five feet above the grade line; second, by its dining room which is always upon the main or parlor floor; and, finally, by the fact that it rarely if ever has a sub-cellar, the basement floor being so considerably below grade as to answer all the purposes for which a cellar is now required.

In analyzing the three types we find the location of the entrance and its relation to the interior arrangement to be the distinguishing feature. In the first we find the most convenient entrance, but its relation to the main living rooms of the house exceedingly bad. In the second, a very inconvenient entrance with fairly satisfactory relation to all of the main parts of the house except the dining room. In the third, we have a fairly convenient entrance with a decided improvement in its relation to the other parts. It is with the development of this third plan that we find all of the wonderful advance and interest in the domestic architecture of today. Its adoption seems to have brought into general use what was heretofore sacred ground, never to be occupied or disturbed except upon special occasions. With it we find the enlargement, beautifying and furnishing of the general and staircase hallway, the reduction of the size and importance of the parlor to what is practically only a reception room, the encroachment of the family sitting room upon that sacred domain so much that in some cases it has even the impertinence to occupy the very front of the house, and, I think, today would always be so situated if the entrance could be adjusted to shield its inmates from too sudden though friendly intrusion.

Some five years since I had an opportunity to place upon paper the plan of a house which at the time I considered original, although subsequent investigations go to prove that in this case, as in all others, there is "nothing new under the sun." The idea was to place the level of the first floor about five feet above grade as in the third type alluded to, and bring the sitting room boldly to the front; but in order to check intrusion I dropped the entrance floor to the level established in the English basement house. This entrance was to be made very liberal and inviting, as indicated in the sketch.

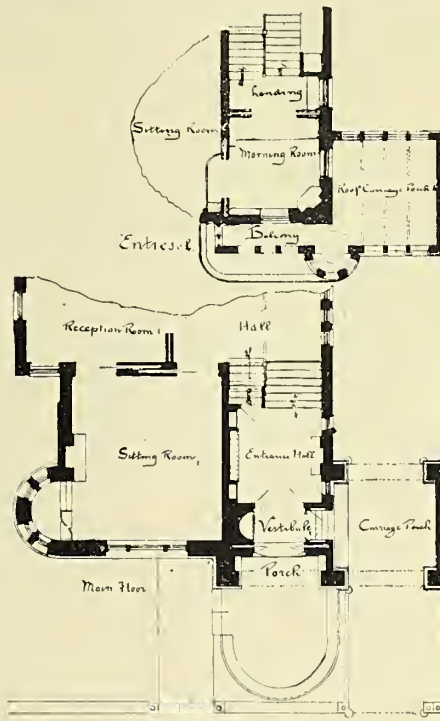


The main floor is reached by a few broad steps, and the visitor is ushered into that part of the house to which his intimacy with the family would make it most agreeable. If not a visitor, but a person upon an errand or other business, the entrance hall accommodates him without any especial disturbance of the household or embarrassment to himself. In this particular plan a carriage porch connects directly with the vestibule, and the excessive height which the entrance would otherwise have is reduced by giving it an entresol which may be used for a den or morning room opening upon a balcony in front and the roof of the carriage porch at the side. Since this plan was prepared several dwellings have been built in Chicago, most of them by eastern architects, in which the main features of this plan of entrance appear, although I believe none of them have the entresol feature. I show another entrance sketch, which is of a dwelling upon the same principle, the plans of which I am now preparing, with the hope that it will be actually built, the main difference of arrangement being the introduction at the side of the entrance of a reception room similar in all respects and for the same purpose as that of a regular English basement.

We may, therefore, in a short time, add to the list of types a fourth, with the midway entrance, the study and development of

which, for houses of the better class especially, it may be to your advantage to give attention.

It would, of course, be useless for me to attempt, in a paper of this description, to give you much information in regard to the details of dwelling-house arrangement that you are not already fully



acquainted with. I have, however, given in the above a brief synopsis, by way of opening the subject, and will, with the assistance of Mr. Treat, be happy to continue the discussion with you in an informal manner, which may be interesting and instructive to us all.

At the close of Mr. Clay's remarks the different features, as touched upon by Mr. Clay, were generally discussed.

Mr. Patton thought that the English basement type had great advantages to be found in no other place in the construction of houses and narrow lots. The entrance on a lower level from the drawing room gave a seclusion that Americans seldom seemed to give thought to. Many people use the second story to live in, really giving up the first floor, and he was glad to see that the plan submitted by Mr. Clay showed a growing tendency toward greater seclusion. It should be possible in every house to have some reception room near the entrance.

Henry Ives Cobb said that in planning his own house he had given the basement floor to the kitchen, etc.; the first floor to reception room, drawing rooms, etc.; the second floor to library and general personal or family use; the third floor to guest chambers, etc.; and the fourth, to servants' quarters. One way of getting the advantages of the English basement style was to have a few steps outside and a narrow passage inside to reach the reception room.

Mr. Beaumont thought it a great mistake to bring the English plan to Chicago as the climate was so totally different. People here like to have porches and verandas where they can sit out of doors on summer evenings, and which the weather does not permit of to so great an extent in England.

Mr. Carlin was asked to make some remarks, and stated that he was greatly interested in the subject. He thought some difficulties would be experienced in bringing the English basement plan into use here, though he had noticed that in our ordinary houses with the lower floor practically open to the street, and each room open to the other, that an hour after dinner the family were usually upon the second floor. Several houses in Buffalo were built in early times by two Englishmen, and some recent houses were built upon the plan of the third type mentioned by Mr. Clay, and it was a good plan for a 25-foot city lot.

Mr. Beaumont called attention to a plan he had seen in Mr. Clays' office which had excellent features. These were, that the drawing room was upon one side of the entrance hall, and the reception room upon the other, and there was direct communication from this to the upper floors; also that the kitchen was reached without going through the dining room, a bad feature of both American and French houses. There was also no direct entrance from the dining room into the drawing room. Mr. Patton indorsed these remarks, and thought that in houses where all the rooms on one floor, such as drawing room, library, reception hall and dining room could be thrown into one, they grew tiresome. Such houses were asked for by people who gave one reception a year, and lived uncomfortably the remainder for that purpose.

Mr. Carlin thought an important feature was a private stairway from the *porte cochère* opened by a panel in the wainscoting which connected with the reception room, so that the guests' first appearance was down the main stairway. Mr. Carlin concluded by observing that the line between a good house and a bad one seemed to be whether the passage to the kitchen was through the dining room. Mr. Clay said about twenty years ago S. D. Hatch, a New York architect, claimed to have invented a plan to reach the reception room



by a narrow stairway and, strange to say, the house was for a gentleman in Buffalo.

In answer to a remark by Mr. Cobb, that the Englishman liked to be retiring and secluded in his manner of living and the American rather the reverse, with open house and his friends around him, with little formality, Mr. Pierce said that he had been in the habit of leaving considerable to his client, and it was well to ask the client how he would like his house planned in regard to these particulars. The meeting then adjourned.

### Seville Cathedral.

According to the London *Telegraph*, the ruinous condition of Seville cathedral has become so serious that the Spanish minister of public works has appointed several eminent engineers and architects to go down and report on the state of the cathedral and the best plans for rebuilding this magnificent specimen of Gothic architecture. At least 10,000,000 pesetas would be required to rebuild the famous cathedral and the Giralda tower.

The repairs attempted last year when several pillars in the central nave were discovered to be in a ruinous state have proved insufficient, many more pillars in other parts of the cathedral being in a very bad condition. The government is disposed to ask parliamentary assistance for the Seville cathedral restoration, as the subscription started in 1888, under the patronage of the queen-regent, has not very been successful.

The decision has been arrived at none too soon. For many years past this magnificent specimen of Mauro-Gothic architecture has been falling more and more into decay, until temporary repairs are no longer sufficient to stay the ravages of time. Pillar after pillar has fallen away, and, unless the roof is speedily strengthened, the famous church which for ages has attracted sightseers to the capital of Andalusia will be in imminent deadly peril of collapse. A subscription was opened last year for a repairing fund. But money is not readily extracted from a Spaniard's pocket, and 10,000,000 pesetas — £400,000 — is a heavy sum to collect in a poor country, where every other city has a church which it considers the finest, or among the finest, in Christendom.

Accordingly parliament will probably be asked for help, and it remains to be seen whether the cortes, which requires all the funds at the disposal of the treasury for needs far more pressing than the restoration of old buildings, will be inclined to take the same view of the matter as the rest of the world. For the cathedral of Seville, and above all, the Giralda tower, which forms part of it, have been, like the Alhambra and many other remnants of the palmy days of the Moorish rule in Spain, in one sense the property of mankind at large. In truth, it is a question whether the hundreds of painters who have drawn it and the thousands of visitors who have admired it have not appreciated the building quite as fully as the race who are its custodians. Seville without the Giralda would assuredly be a pleasant town. At this season it is scented with orange blossoms and bosomed in joyous greenery. But without this most celebrated of its "lions" the place would fall in public esteem to the level of any other sleepy provincial city. The Giralda is the first of the spires of Seville to come in sight and first to be visited. The omniscient schoolboy of Macaulay could tell how the lower part of the tower was

built in the latter half of the twelfth century, by order of Sultan Abu Yusuf Yakub, and the upper portion, with the belfry, surmounted by the bronze figure of Faith, by Fernando Ruiz, four hundred years later. The cathedral is now the larger of the two structures; but, historically, it is simply an accretion to the Giralda.

### Mosaics.

LINAURA is a specially prepared linen fabric for blue printing. The prints are made directly on the linen, giving as good prints as on paper. Whenever a print is to be much handled, or is desired for binding as a permanent record, it will be found invaluable on account of its great strength and durability. The manufacturers are Williams & Brown, of Philadelphia. The samples shown are exceptionally clear, and the prices quoted extremely reasonable.

THE Pittsburgh Brass Company, Alleghany City, Pennsylvania, is manufacturing a fireplace frame, which they designate the "Perfection Frame," that is deserving of special mention. Its peculiarities may be epitomized as follows: It is so made that it can be taken apart and put together like a fishing rod, a feature that permits quantities being shipped in small compass. By filing the holes it can be adjusted from one-quarter to one-half inch either way. It can be cut down to any size with little trouble. The eyes on the inside of the frame for attaching to hooks are so made that they can be adjusted, at least one inch, to come opposite the wall hooks when driven in seams of brickwork. There are no soldered joints to melt, and the workmanship and finish cannot be surpassed.

THERE is no better indicator of the merits of a book than the number of its editions. The twentieth edition of "Steam," a work published by the Babcock & Wilcox Company of New York, has been received and is well worthy of note, since, however excellent it was before, it has been greatly improved by having its subject matter rewritten and enlarged upon, thus greatly enhancing its value to everybody directly or indirectly interested in the generation of steam and its application, whether to power or for heating purposes. It is unnecessary that an outlining of the contents of the book be made, since, as may well be supposed, it covers all the practical and theoretical questions involved, and treats them in a lucid and intelligent manner. It is a work worthy of a place in every architect's library, and should be in the hands of everyone whose work brings them in contact with steam generation.

### Railroad Notes.

The tourist season is at hand and the sale of summer tourist tickets to the eastern resorts commences June 1. The finest train that ever ran from Chicago to the White Mountains and the seaside resorts, is announced by the Chicago and Grand Trunk Railway, it is called "The Seaside and White Mountains Special." It is a solid Pullman Vestibuled Train, with electric light, library, barber shop, bathroom and dining car, and four magnificent Pullman Vestibuled Sleeping Cars. The company has also published a list of hotels and summer boarding houses at the eastern resorts, and an immense amount of information to summer tourists, mailed free, by addressing E. H. Hughes, General Western Passenger Agent, Chicago and Grand Trunk Railway, 103 South Clark street, Chicago, Illinois.

### NOTICE TO CONTRACTORS AND BUILDERS.

Sealed proposals will be received by Edbrooke & Burnham, architects, 184 Dearborn street, Chicago, Illinois, until 2 o'clock P.M., on June 7, 1889; also by D. J. McComb, secretary of the Amateur Athletic Building Company, Memphis, Tennessee, until 2 o'clock P.M., on June 9, 1889, for the labor and material required in the erection and completion of a club house 70 by 148 feet 9 inches in size and four stories in height, for the Amateur Athletic Association, to be erected in the city of Memphis and the State of Tennessee, in accordance with plans and specifications on file at each of the above-named places. Bids will be received on any one or more branches of the work, or upon the whole building complete. All bids shall be itemized

and made out on blank forms furnished by the architects to intending bidders, and such bids shall be placed in sealed envelopes and signed by the bidder, and addressed either to the architects or the secretary of the Building Company, and indorsed proposals for (stating what branch or branches, or the whole work therein included) of the Amateur Athletic Association Club House, Memphis, Tennessee. Successful bidders will be required to give bonds with two or more sureties, to be approved by the Building Committee, when entering into contract with the association, equal in amount to twenty per cent of the amount of such contract. A copy of this notice must be attached to each bid submitted. The right is hereby reserved to reject any or all bids or to accept any one or more bids on said building or works.

D. J. McCOMB, Secretary.

### NOTICE TO CONTRACTORS AND BUILDERS.

Sealed proposals will be received until June 15 next, for the building of a Methodist church, of brick and stone, on lot 121, in Yazoo City, Miss., as per plans and specifications in the hands of the building committee in this city, made by Benjamin D. Price, of Philadelphia. The committee reserve the right to reject any and all bids. Bond and approved security will be required. Address all communications to

J. F. POWELL,  
Chairman Committee.

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Chas. C. Hellmers, St. Louis, Mo.

A Proposed Ordinance to Limit Height of Buildings. Periodically the city council of Chicago considers the subject of limiting the height of buildings. The matter never seems to get beyond the agitation point in the shape of an ordinance, but almost every year some alderman, usually one who is never noted for his public spirit but open to the suspicion of working for perquisites or popularity with a low grade of constituents, presents an ordinance that if placed in operation would damage the business interests of the city beyond computation. It is not believed that if such an ordinance was passed that it could be enforced, and, more than that, there is no reason either practical or sentimental that calls for such limitations. The business district of Chicago is less than a square mile in extent. It cannot conveniently go beyond the river on the west and north; it is bounded by the lake upon the east, and south of Polk street the property—excepting a strip two blocks wide along the lake—is almost entirely owned if not already occupied by railroads. This railroad property forms almost as complete a bar to extension southward as the lake upon the east. This condition cannot now be changed, and makes the upward tendency in building imperative, at least for many years to come. And still there is a limit to the height of buildings established in this district which cannot be overcome. The compressible soil which underlies this portion of the city has a bearing capacity limited to about two tons per square foot, and this in the ordinary office building construction spreads the foundations in a structure two hundred feet high over the entire ground area. The total amount of private ground within the central square mile spoken of is less than three hundred acres, and upon this the business center of a city of two million inhabitants must be located ten years from now. The necessity for building upward is apparent. An evil that would result in the proposed limitation to the height of buildings that would hardly be counteracted by any amount of benefit that might be derived from a spreading of the business section, would be the almost total destruction of the fireproof qualities that make our present high structures absolutely safe. If high buildings have built up the fireproofing interest, it is certainly owing to the cheap and effective methods that have developed in the manufacture and placing of fireproofing material as much as the improvements in elevators that have made high buildings remunerative. There is no sense, no utility and no necessity to limit the height of buildings in the city of Chicago, and we do not believe there is anyone who will honestly advocate the passage of such an ordinance.

The Revised Code of the St. Louis Competition. About May 1 the mayor of St. Louis issued an advertisement, passed as an ordinance by the city council, which called attention to a proposed competition for plans for a city hall to cost not more than \$1,000,000. The main fact stated in the advertisement was that \$5,000 would be awarded to the architect whose plans were selected and they should become the property of the city. We so thoroughly pointed out the evils of such a competition as seemed to be proposed, and well-known architects joining in placing before the commissioners in charge the form of competition which would bring the best results, that the code was revised on May 27, and, while it still retains the objectionable clause, "the same (plans) shall belong to the city," it is otherwise



generally fair and by all odds the best proposal for competitive plans that has ever emanated from a municipal board in this country. The ordinance reads as follows :

SECTION I. The new city hall is hereby located in Washington square; the building to be fireproof and constructed of Missouri granite and brick, at the cost of \$1,000,000. The mayor is authorized and directed to advertise for plans and specifications for the building. The sum of \$5,000 will be paid for the plans and specifications that are adopted in the manner hereinafter stated, and the same shall belong to the city. The sum of \$1,000 each will be awarded for the five plans and specifications that are deemed meritorious by the commission, although not adopted. The awards shall be made by the vote of two-thirds of the City Hall Commission, consisting of the mayor, comptroller, president of the Board of Public Improvements, president of the council, the speaker of the House of Delegates, the city counselor and the commissioner of public buildings. The sum of \$10,000 is hereby appropriated from municipal revenue to pay the above awards; and the sum of \$1,500 from municipal revenue to pay for advertising and other necessary expenses of the City Hall Commission. Said sum shall be paid on vouchers approved by the mayor. The above advertising shall be in such St. Louis, Boston and New York papers as the mayor may select.

Approved April 4, 1889.

The principal points in the revised competition code are as follows :

The building to be erected is a modern structure adapted to the uses of the city government, as contra-distinguished from one of a monumental character. It is to front on Twelfth street, so that the center line of the building shall correspond with the center line of Walnut street, produced westwardly through Washington square. The building is to have four floors and a basement. It will embrace 45,000 square feet of floor surface on each floor, including the hallways, stairways, corridors and lobbies. The basement will contain the heating apparatus, also munition rooms, and such other rooms as may be adapted to it. \* \*

All plans submitted are required to be drawn on a scale of one-sixteenth of an inch to a foot.

The elevations shall be in line drawings.

No shading to be done on elevations, but windows may be tinted to show glass.

The plans submitted shall exhibit each floor plan, each elevation, and one cross section. Additional sketches may be submitted to show particular features of rooms that cannot be shown in the plans and section. \* \* \* \*

The cost of the building is limited to \$1,000,000.

A type-written description of the building should accompany each set of drawings, giving, as clearly as possible, such information as cannot be shown on the drawings concerning materials, methods of construction and decoration.

Each drawing and the description must be distinguished only by a motto or device, which should be repeated on the outside of a sealed envelope containing the author's name and address.

The decision will be rendered on or about December 1, 1889.

A design will be excluded from competition if any attempt is made by its author, directly or indirectly, to disclose his identity; or to influence the decision of the members of the commission or their adviser; or if sent in after November 1, 1889; or if it in any particular violates the conditions herein stated; or if it shall be found that its probable cost will exceed the limits herein named by more than fifteen per cent. \* \* \*

The space set forth for the rooms may be increased by the competing architect to meet the necessities of his plan.

An expert adviser will be employed by the commission to advise the members as to the merits of the plans submitted. The selection for this purpose will be Professor Ware or Professor Ricker.

The successful competitor will, if the work is carried out and he so desires, be employed to furnish the detailed and working drawings and superintend and supervise the erection of the building at the rate of compensation established by the schedule of the American Institute of Architects, of which, in such event, the \$5,000 paid for the plans shall form a part; but if, on the disclosure of the names, the successful competitor shall prove to have had slight experience in building, the right is reserved to associate with him a consulting architect, to whom a proper proportion of the fees shall be assigned.

Parties who so desire may include perspectives in pen and ink drawn to the same scale as the plans and elevations, from a standpoint distant four hundred feet from the nearest part of the building, the fronts shown to make equal angles with the plane of the picture, and the horizon to be ten feet above the base line of the building. The perspectives to be without shading or landscape or other accessories, except a single human figure six feet high to give the scale.

Rejected designs will only be used, in whole or in part, by agreement with and compensation to their authors.

EDW. A. NOONAN, Mayor.

JNO. D. STEVENSON, Comptroller.

HENRY FLAD, Pres. Board of Public Improvements.

C. P. WALBRIDGE, President of the Council.

HENRY ALT, Speaker of the House.

LEVERETT BELL, City Counselor.

THOS. J. FURLONG, Commissioner of Public Buildings.

We would not have it understood that this code is to us in every way satisfactory. It can never be admitted by architects that the plans of a building are other than instruments of service. There is no definite statement that the advice of the expert will be accepted, and the design that he selects premiated. Allowing \$125,000 for the stone exterior, the interior called for will have to cost within 25 cents per cubic foot, which is a very low estimate, and the fifteen per cent latitude will be a temptation to design a building that

will cost more than the specified sum. Still we are bound to believe that these gentlemen are desirous of obtaining the best architectural service and are willing to pay for it, and we would be glad to see these hopes realized. The competition code formulated by some of the best architects in the country and adopted by the Western Association is always accessible to municipal bodies, and by its adoption at the start they would save themselves from all danger of losing all chance of securing first-class architectural service, as it is the only code that architects will look upon without some degree of suspicion.

The Proposed  
Art Congress  
to be held  
in Chicago.

A circular letter which is given in full upon another page has been issued to the art societies and schools of the United States, regarding the art congress which it is proposed to hold in Chicago in the autumn. The broadening of the field of the fine arts to include all manner of art work as applied to architecture is like the movement, or rather accomplished revolution, which has taken place in methods of mental education which hereafter will include some form of physical training. And as the latter is a decided advance in the direction of more perfect culture, so the former will prove in an incalculable degree beneficial to art progress, making art no longer a mere luxury. And America is not alone in this movement, for this broadening of the field of art has long been recognized in Europe and simultaneous with the proposed congress in this country a convention of art societies upon the same lines as the one proposed will be held in Edinburgh in November. It is then proposed to take up a few rather than many subjects and deal with them thoroughly, and it is suggested by some of the leading minds that to make the proceedings generally valuable craftsmen should be allowed to share in the deliberations. In arranging for the congress at Chicago efforts should be made to have as complete a display of American architecture as possible, not only perspectives, details, etc., of executed work, but drawings and samples of executed designs from workers in glass, bronze, iron and wood, and the whole arranged and catalogued so as to be as educational as possible to visitors. In fine, such a congress should not be a meeting for the reading of papers and the airing of worn-out and useless theories, but to bring the practical facts in art work clearly before the people. The meeting should be so arranged that the art workmen, at least of the city in which the congress is held, could have the privilege of attending. The movement is too important to be made abortive by incomplete arrangements, but the committee in charge is strong and intelligent, selected from among the best directors in the different art societies of the country, and the movement should meet with every possible success.

An Important  
Industrial  
Art Exhibit at  
Philadelphia.

An important exhibition, which should attract the attention of artists and manufacturers in glass, terra-cotta mosaics, brick, tile and other decorative material, will be held in Philadelphia during the coming autumn, the particulars of which are given elsewhere. If we might be allowed to point a moral, in calling attention, as we do, to the establishment of trade schools by the builders, and the increased attention given to instruction in industrial art, we would suggest that these are reaching far in advance of the architectural profession, among whom no serious movement has yet been made toward the establishment of even one purely architectural school.



## Romanesque Architecture.

### CHAPTER VII.

BASILICAS OF CONSTANTINE — OF ST. PAUL-OUTSIDE-THE-WALLS — OF ST. MARIA MAGGIORE — BAPTISTERY AT NOVARA (ITALY).

THE basilica which was named after Constantine is one of the oldest judiciary basilicas which was transformed into an early Christian sanctuary.

Commenced under Maxentius, it was finished in the first years of the fourth century, during the reign of Constantine. It might be considered one of the last monuments of antique art. The plan is simple and worthy of being compared with the golden age of Roman architecture. The proportions of the hall are charming, and the construction of it carefully studied.

The nave of the basilica of Constantine has the peculiarity of exactly resembling the Tepidarium of the Baths of Caracalla. (Fig. 10.) It is quite natural, however, that the architects of the time of the Emperor Maxentius should have been influenced by those superb monuments, which they had before their eyes, and which must have been then in all their glory.

The architectural expedient is the same as in the baths. The principal hall is composed of three grand bays, formed by the great longitudinal niches, and is covered with a semicircular ribbed vault, made of bricks and rubble. The thrust of this beautiful vault, the springing point of which rested on disconnected

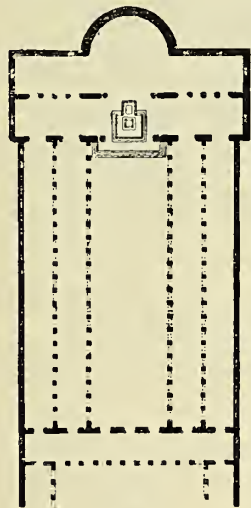


FIG. 18.

columns crowned by a cornice with an architrave, was carried on transverse walls pierced with arcades, which connected the side aisles. These transverse walls were themselves united and strengthened by heavy semicircular groined arches, constructed like the grand vault and ornamented in the interior with decorated caissons.

The basilica terminated at the altar in a hemicycle or apse, vaulted with a quarter of a sphere and across the façade and

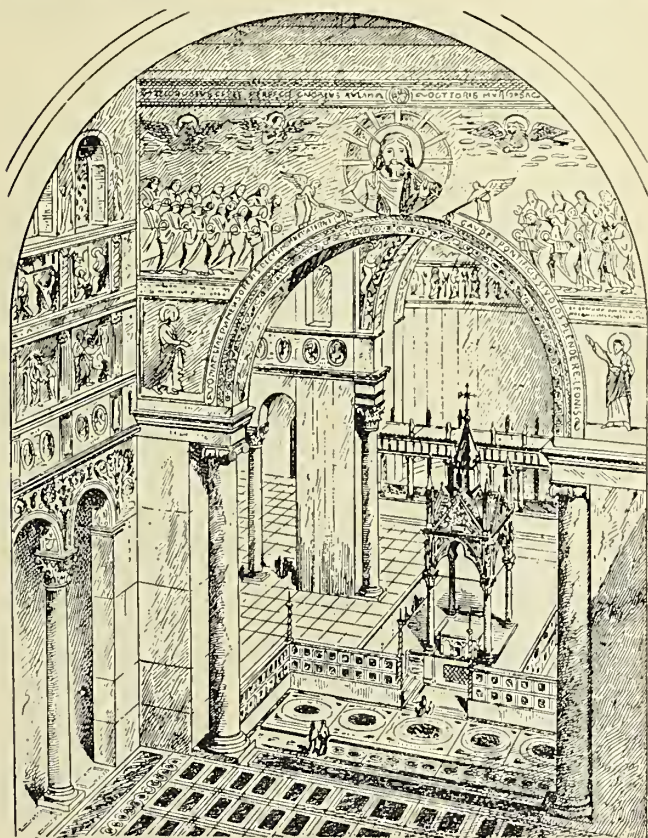


FIG. 19.

extending the entire width was a portico enriched with columns, on to which the doors opened.

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

After the monuments of Constantine come those of his successors, which elaborated still further the construction of the basilica.

Among those which were erected in great numbers about the end of the fifth century, the basilica of St. Paul-outside-the-Wall ought to be mentioned, built on the road to Ostia on the site of a little church of Constantine's.

Commenced in 386 and finished in the first years of the fifth century under the reign of Honorius, it was, with the church of St. Peter, one of the largest basilicas of Rome. (Fig. 18.) It possessed a vast transept, belonging to the Theodosian Arrangement.

The plan of the basilica of St. Paul-outside-the-Walls had the transept of the Christian Church clearly defined (Fig. 19). The principal nave and the four lateral naves are separated from the transept by a wall pierced by a triumphal arch and four secondary

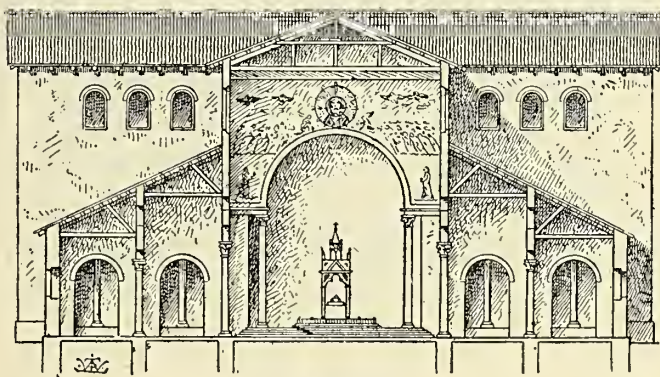


FIG. 20.

arches. (Fig. 20.) The high altar with its inclosure separated the choir, reserved for priests, from the congregation in the nave.

The arms of the transept were occupied by the acolytes and people of the different religious orders.

The proportions of the basilica of St. Paul-outside-the-Walls were colossal. Its length was 143 meters, including an apse 25 meters in diameter. The nave and the side aisles were 65 meters in width, and the transept 72 meters. The central nave, about 25 meters wide, was formed of two rows of twenty Corinthian columns, connected by an arcade of semicircular arches without archivolt; above this arcade a grand frieze was ornamented with frescoes. From the beams of the truss to the ground was 25 meters. Rich mosaics decorated the apse, the walls of the transept and the triumphal arch.

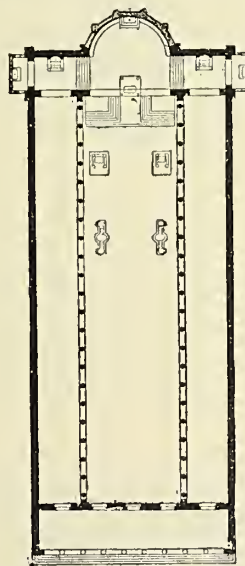


FIG. 22.



FIG. 23.

The basilica of St. Maria Maggiore at Rome (Fig. 22) was erected at the commencement of the fifth century by Sextus III, on the site of another edifice of the same kind built by Pope Liberius, and dedicated in 353. The Pope Eugene III, toward the middle of the twelfth century, added to it a portico, which was torn down in 1572 by Gregory XIII, and replaced under Benedict XIV in 1743 by the present eight columned portico, executed after the plans of Ferdinand Fuga. From this portico one can enter by five doors into the three naves of the basilica, which is nearly a hundred meters long, including the hemicycle, and 32 meters wide.

The nave is formed by two rows of Ionic columns, the shafts of which are plain. They are crowned by a horizontal entablature, the



frieze of which is decorated with arabesque foliage and the cornice with corbels. Above this and on a level with the roof of the side aisles is a grand ornamented frieze, above which semicircular windows light the principal nave.

The ceiling of this nave is of the time of Celestine III, toward the close of the twelfth century. It is decorated with gilded carvings executed at the end of the fifteenth century, under the pontificate of Alexander VI, by Julian of Sangallo.

Among the baptisteries erected in such numbers in the fifth century, that of Novara should be mentioned, because it calls to mind the arrangement of a much older edifice destined for the same usage, erected at Rome in the fourth century by St. Sylvester, near to St. John of the Lateran.

According to the custom prevalent among the early Christians, the baptistery was separated from the basilica; that of Novara was composed of an octagonal inclosure, covered with a groined arch, surmounted by an open lantern (Fig. 27). In the center was the piscina, where baptism by immersion was performed. The bulk of the wall was diminished by four semicircular niches and four rectangular recesses. In that at the back was placed the altar, the use of which was prescribed by the liturgic ceremonies of baptism. The building was lighted by windows cut in each side of the octagon above the slanting roof, covering the niches which formed the lower portion of the edifice.

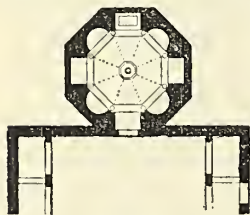


FIG. 27.

## CHAPTER VIII.

## CENTRAL SYRIA—BASILICA OF TAFKHA—BAPTISTERY OF MOUDJELEIA—CHURCH OF BEHIO.

Christian architecture which took such a wonderful start at Rome in the first years of the fourth century, developed and spread at the same time in the East, and particularly in Central Syria. Roman influence had been manifested in this country from the second century, and it was during several centuries an art center, whose influence was felt even in Europe.

The basilica of Tafkha (Central Syria) is a Christian edifice built in either the fourth or fifth century, after the model of the antique basilicas. (Fig. 28.)

The transition from the civil Roman basilica to the Christian church is clearly seen here.

The system of construction is most simple. The nave was formed of ranges of parallel arches, one great arch for the central division and two small ones superimposed for the side aisles. These were two-storied. The ceiling of the second gallery was of stone, like the entire edifice, and was composed of blocks of stone carried on the corbels built in the transverse walls.

These walls were nearly three meters thick, and the ceiling was made of large slabs of stone (Fig. 29) resting on their top, the span of the slabs of the ceiling being diminished by the projection of a cornice running around the whole nave. On these slabs an incline made of concrete or cement insured the drawing off of the rainwater (Fig. 30).

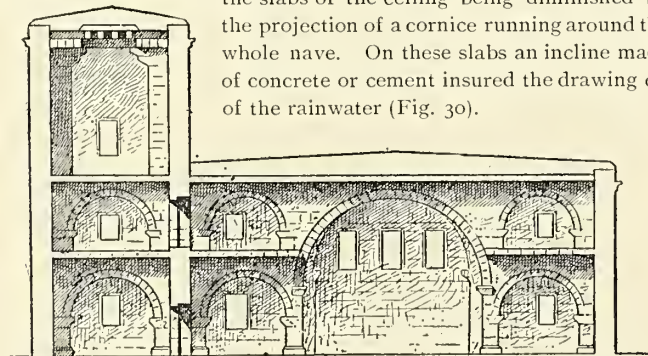


FIG. 29.

The transverse and longitudinal cuts, Figs. 29 and 30, show at the same time the curious arrangement, as well as the skill of the builders, who, having only stone at their disposal knew how to use it in the most practical manner for the construction proper. They even used stone in the place of wood, which, no doubt, was rare in that region, for the window cut in the depth of the wall at the left of the apse is closed by a marble slab, doing the office of a shutter. One of the windows in the tower has likewise kept its blind of stone.

This three-storied tower is built on to the left side of the façade. This kind of construction is frequent in Central Syria. The great houses of antiquity are often accompanied by towers, and the funeral monuments offer this form.

The monument of Moudjeleia (Central Syria) presents all the characteristics of a baptistery of the fifth century. There does not exist in all this region a church of polygonal form.

The center of the edifice was, without doubt, open to the air, for there is no trace of the original covering over the central part, while the holes for the beams

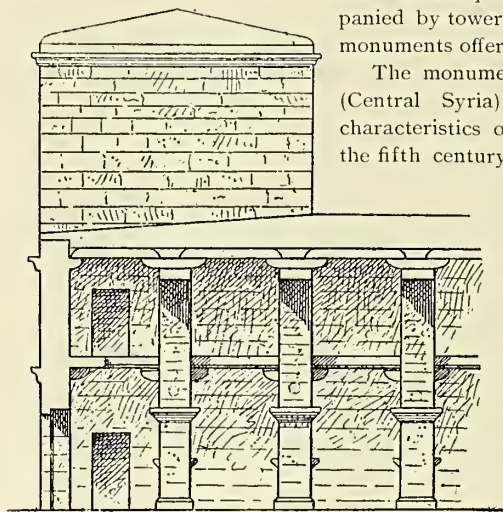


FIG. 30.

over the side aisles are still there, showing their old arrangement. A simple pent roof covered the apse and its adjoining rooms.

The basilica of Behio (Central Syria), built about the commencement of the sixth century, differed from all the other edifices of this

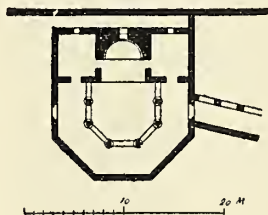


FIG. 31.



FIG. 34.

time, in that its apse was square instead of hemispherical, and in having a gallery or portico extending along the side of the edifice.

The gable above the arch of the apse shows very clearly the arrangement of the roof which covered the basilica, and it can be

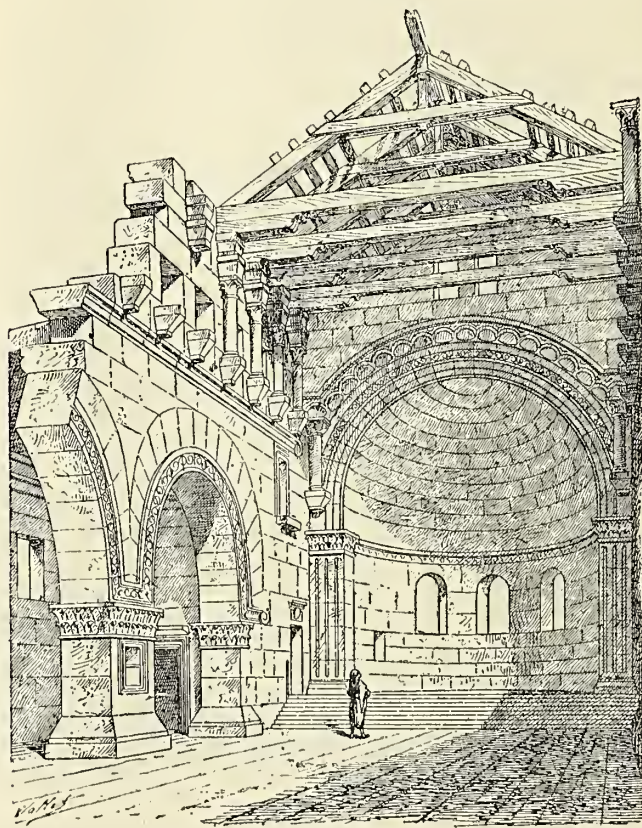


FIG. 45.

seen with what care the constructors arranged in the masonry the place which was to receive the different parts of the woodwork, as shown in Fig. 45 in all its details.



CHAPTER IX.

CENTRAL SYRIA—BAPTISTERY OF ST. GEORGE OF EZRA—CHURCHES OF BAQOUZA AND OF QALB-LOUZEH.

The baptistery of St. George of Ezra is one of the most interesting monuments of Central Syria. In the primitive church, baptisms were rare, for they were only in the episcopal cities, the administration of the rite of baptism being reserved for the bishop.

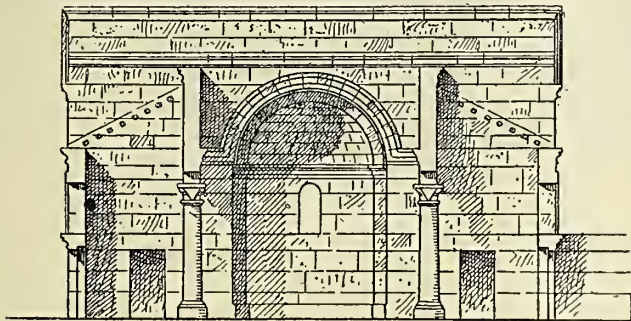


FIG. 32.

St. George of Ezra has come down to us without other changes than those necessary to transform it into a church, which was from the first dedicated to the Catholic form of worship, for which it was constructed, and which is still celebrated under its venerable arches.

The plan is very simple. It is composed of two concentric octagons inscribed in a square; the central octagon is crowned by a cupola.

Out of the eastern side opens the apse, preceded by a narrow bay; on each side are built small square retiring rooms, and in each angle of the square inclosure are niches or exedras, the faces of which form one of the sides of the octagon. Three doors open on the west façade, and one on each of the lateral faces.

The cupola, about 10 meters in diameter, is sustained by eight pillars, 5 meters in height. The two upper divisions of the first story of the octagonal rotunda have respectively sixteen sides and thirty-two sides, so as to pass in this manner gradually

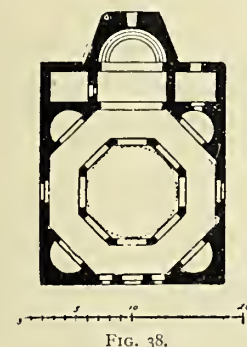


FIG. 38.

from the polygonal form to the circular plan of the base of the cupola, which becomes ovoid as it rises, bringing to mind the monuments of Central Asia.

With the exception of the cupola, made of rubble, all the masonry is of dressed stone, set without mortar.

In the base of the cupola little semicircular windows open in each side of the octagon. It is the oldest existing example of a system of

lighting which received its full development in St. Sophia of Constantinople. The side aisle and sanctuary are covered with slabs of stone placed on the walls and on the arches, the span of which is lessened

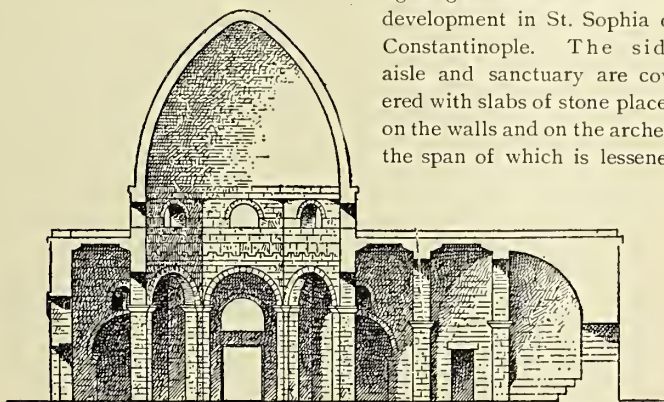


FIG. 39.

by a cornice running around the whole. In a semicircle at the back of the apse were three rows of graded seats destined for the clergy; the altar was placed in the first bay of the sanctuary, which communicated by a door with the private sacristy. The second sacristy was, on the contrary, accessible to the public by a door opening on to the exedra of the southeast angle.

A curtain, hung between the pilasters of the entrance of the sanctuary, veiled the holy mysteries according to the Oriental liturgy. The principal door was composed of a rectangular bay, surmounted

by a lintel, relieved by an arch. On the lintel, decorated at its two extremities with crosses and vine branches, is a Greek inscription, dated from the end of 516 or the commencement of 516, the year of the erection of the building.

The church of Baqouza (Central Syria), erected at the commencement of the sixth century, is a beautiful monument, well situated on the side of a hill; a large sub-basement offsetting the inequality of the ground, and giving to the church an unusual position.

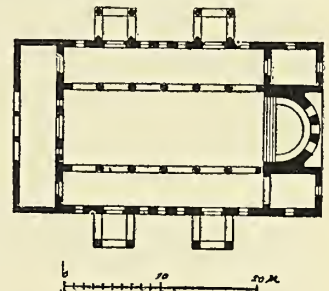


FIG. 40.

The apse, with its strongly accented lines and its magnificent cut-stone work, has an extremely antique feeling.

A restoration of the edifice, made with the most scrupulous exact-

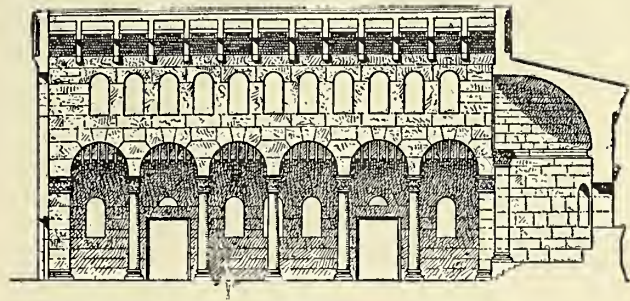


FIG. 41.

itude from parts existing entire, is shown in Figs. 41 and 42.

The nave is formed by two rows of columns of antique proportions, carrying semicircular arches having no extrados or ornamented

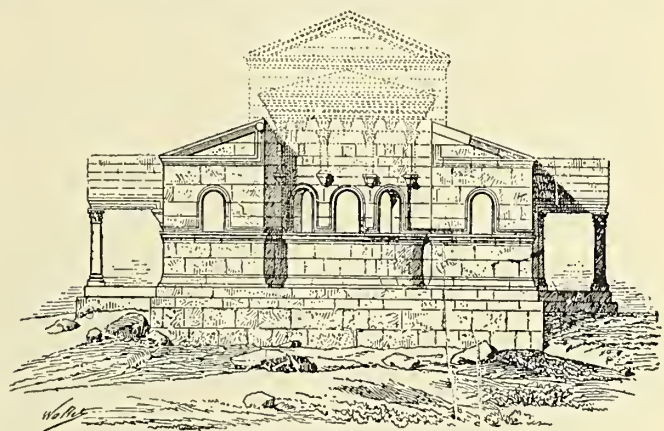


FIG. 42.

molding. Above the arches, a range of windows, the piers of which are a course, and the curved part of which is hollowed out of a monolith, lights the interior of the basilica.

An open timber roof, extending between the two gables, appears to have covered the nave as well as the side aisles.

Before the side doors are arranged porches formed of small vaults of stone, the springing points of which rest on isolated columns and corbels or half columns, built into the walls of the edifice. The apse, vaulted in a quarter sphere and covered with cutstone, opens from the wall at the back, on a level higher than the floor of the nave.

The western façade was preceded by a portico, which is only indicated in Fig. 42, because of the uncertainty in which the state of the ruins leaves it.

The church of Qalb-Louzeh (Central Syria), in the form of a basilica, is a wonderfully well-preserved monument. It only lacks the exterior wall of one of the sides and a part of the western façade. It is only necessary to continue the interrupted lines, to reconstruct this monument in our thoughts, even to the smallest detail, as it existed in the sixth century of our era.

The church is nearly 38 meters long by 18 wide. It comprises a pronaos or narthex, flanked by towers, beside a nave and two side aisles. The nave is formed of massive pillars, connected by low

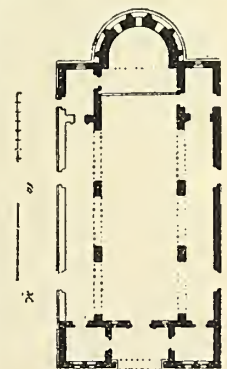


FIG. 43.



arches. Above a row of small windows, alternating with small columns of a classic order, decorate the upper story.

The two upper members of each of these columns form corbels, on which rest the frame of the open timber roof, extending between the two gables.

The side aisles are covered with slabs of stone, the joints of which lap, and the molded outer edge of which constitutes the cornice of the side aisles.

The roof, indicated in Fig. 45, has disappeared; but the place of the columns, the height of the openings that surmounted them, determine the place and dimensions of the beams of the gables. The square holes destined to receive the longitudinal beams, carried on the principal rafters, enable us to understand all the details of the arrangement.

The decoration of the basilica of Qalb-Louzeh is more rich than the other edifices of the same kind and time. It affects the forms which tended toward the Byzantine style.

Elements borrowed from antique decoration are mingled with crosses and Christian symbols. It is known how rarely living forms

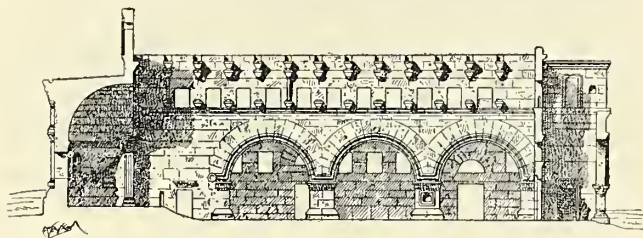


FIG. 44.

are found in ecclesiastical sculpture of Oriental churches. In this particular the church of Qalb-Louzeh possesses a curious detail. On the lintels of the first side doors are two busts of men, above which is engraved, in Greek characters, Michael and Gabriel. These two busts were, then, the figures of two archangels, who, placed above the entrance, seemed to keep watch over the sanctuary.

The side doors are preceded by porches, some of wood, covered with a double-pent roof, and the rest in stone, built with a ribbed vault.

(To be continued.)

### An Important Glass and Pottery Exhibit.

THE Committee on Exhibitions of the Pennsylvania Museum and School of Industrial Art, at Philadelphia, has determined to hold another exhibition of pottery, porcelain and glass (including mosaic work) during the coming autumn. This action is taken in compliance with many urgent requests from individuals and firms who believe that a second exhibition could be made a thoroughly representative one of American art industry, far exceeding in extent and importance the one held last year. The American Potters' Association at their annual convention, at Washington, appointed a special committee to report in reference to the proposed exhibition. This committee, consisting of Mr. D. F. Haynes, of Baltimore, as chairman, and of representative men from different parts of the country, such as ex-Congressman J. Hart Brewer, of Trenton, presented a carefully considered report. In it the committee speaks of the great importance of bringing to the aid of their craft the influence flowing from our art schools, and quote with emphatic approval the following words of Colonel J. E. Clarke, the chief of the United States Bureau of Education, in his report to the United States government.

The place of art is not only in public galleries; it is, above all, in the houses and at the firesides of the people. From being largely an agricultural community, the people of the United States must of necessity with accelerated strides become more and more manufacturers; to be successful, it is clear that our manufacturers must become more and more artistic, must put more of the art quality into their work, for the United States pays millions every year to the superior artists and artisans of other countries. The labor we have to dread is the skilled labor of the world. In the artistic development of our industrial resources, as in the experience of other nations, will be found the surest solution of our material welfare. On it depends the prosperity, perhaps the life, of the republic.

The committee further says:

Our art publications, our magazines, with their marvelous illustrations, are doing much to uplift the masses, but many of our people do not come under their influence, cannot afford to buy them; but they must have a cup to drink from, a jug to hold water, and by giving them these articles, beautiful in form and decoration, simple and inexpensive though they be, we can do much to train the eye, and thus reach the minds and hearts of men and women. Our industry has for years been well protected for the purpose, in the main, of developing its artistic side where we have most neglected it? Finally, taking the lowest possible view of the subject, as it can be shown by the clearest proof that the art quality has a money value that can be turned into the pocket of the manufacturer, shall we not encourage its development in every proper way?

The committee then recommended that a committee of five be added to the permanent committee, to be known as the Committee on Art and Design, and that this committee be instructed to confer with the committee of the Pennsylvania Museum and School of Industrial Art, and cooperate with them in the arrangement of their schedules and other matters.

### Architecture in its Relation to Landscape.\*

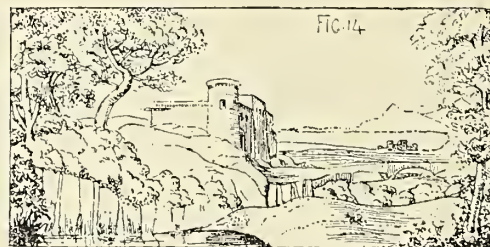
BY H. H. STATHAM.

(Continued from page 71.)

TURNER is fond of having a building as a light object at the foot of a dark hill, as in sketches shown from two of his compositions, and the same composition is seen in Stanfield's "Como" (Fig. 13). No. 406 in the National Gallery. Turner values a bridge



very much as a level line in the midst of a landscape, contrasting and giving value to the undulating lines of the country, as seen in his well-known picture "Crossing the Brook" (497 National Gallery), and his "Apuleia," 495 in the same collection, in which a series of nearly level lines are maintained across the picture, the bridge forming the most decisive one, which are stopped by a vertical mass of trees on the right. In Stark's "Valley of the Yare" (1204 in National Gallery) the opposite expedient is seen, the landscape alone forming the level line, the building (a church tower) the vertical one. An extended mass of building on a high platform is an effect which takes Turner's eye, as seen in his views of Blenheim and Powis Castle; and a precisely similar use is made of this effect in the remarkable landscape (considering its period) in Gian Bellini's "Christ's Agony in the Garden" (No. 726 National Gallery), where on the left a long mass of buildings on an elevated table land is shown, bright against a mass of dark rain-clouds. In Ruysdael's picture, No. 990 in the Wynn Ellis collection at the National Gallery, you can see the value which a painter attaches to towers in a level landscape, where these towers at various distances serve both to contrast with the level lines of the landscape and to mark the successive grades of distance, giving scale to the landscape. Claude employs his castles in the same way, as in the sketch shown from the *Liber Veritatis* (Fig. 14), where you have a castle near the foreground and a nearly similar one in the middle distance, which serves to assist the expression of distance, by comparison with the scale of that in the foreground. Turner, too, likes to have spires as single vertical objects cutting through the lines of his landscape, as in his views of Salisbury and Honfleur. In hilly country, the opposition of level lines of building cut across by oblique lines of ground is an effect that arises naturally out of the circumstances, and which nearly always produces a pleasing effect. An example of it is the sketch from Turner's "Greville," a level plain over most of the picture, a slope of hills on the left, and the buildings seated on the hill repeating the level line of the plain. A more marked example of this contrast of horizontal architecture with sloping lines of ground is shown in Percier and Fontaine's illustration of the Villa Madama, with its rigid classic lines and its level platform in front, and the slope of the hill cutting against it behind; although I doubt if this is in accordance with the actual facts. The same architectural illustrators show the effect of straight-line classic architecture backed by the undulating lines of a hilly country in their illustration of Villa Albani; and in that of Villa Caprarola we have the stateliness and square proportion of the classic building emphasized by contrast with the irregular piles of *roba di Roma* below. The effect of the sloping lines of landscape seen between a classic arcade in the foreground is also to be noted in one of Pinturicchio's "Griselda" series before referred to, the one called "The Restoration" (No. 914 in the National Gallery). A curious composition from a collection of sketches of Richard Wilson's (Fig. 15) shows, apparently, an attempt to compose buildings and hills so that the one should repeat or echo the line of the other. As an example of fortunate composition of house and landscape in an actual scene I give the view sketched in Fig. 16, where an ordinary country house has been placed at the exact point where the outline of the landscape seems to require it. In Fig. 17, the same scene with the house put back from the end to the middle of the high ridge of land, it will be seen how completely the picture is spoiled by the alteration.

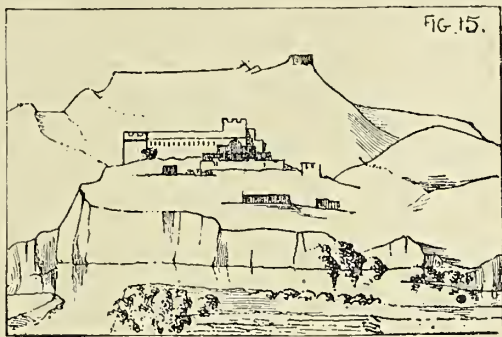


When there is more than one lofty building brought into the scene, a fine effect will often be realized by getting one in sunshine and the other in the shadow. I have seen this often splendidly realized with the two towers of the Houses of Parliament, one of them sparkling in the sun, the other frowning under the shadow of a cloud. That is one of the happy results obtained by Barry's true architectural instinct in placing his two towers at opposite extremities

\*Paper read before the Society of Arts, London, England, April 9, 1889.



of the building (thus indicating the extent of the building), while at the same time each tower exercises its own independent architectural expression. To put two such towers close together would be to lose half their architectural value. Turner was also observant of this effect, as shown in many of his works—in his powerful *Liber Studiorum* sketch of the Martello Towers near Hastings, in his sketch of Greenwich from the same collection, one cupola in sunshine and the other in shadow; in his "Coventry" with two spires in sunshine and shadow in like manner, and a third sparkling from behind a rain-cloud. The dazzling intensity with which a tower of any kind will sometimes show when caught by the sun and backed by a deep cloud, especially in thundery weather, is extraordinary; no mere



painting can give anything strong enough for it. I remember a sea-coast effect once of this kind, with a white lighthouse standing out against a thunder-cloud, which was so striking that though it is at least twenty years ago, the impression is as fresh on my mind as if it were yesterday. These brilliant atmospheric effects on buildings are of rare occurrence, certainly; they depend on a concurrence of circumstances; but they show what part a building may play in a moment of extraordinarily powerful landscape effect.

Among instances of special effect produced by buildings in landscape is one of which Turner shows some fine examples—the prominence of a lofty tower of some kind in the foreground, which crosses the whole picture and throws back the distance. There is a fine instance of this in No. 364 of the Turner water-colors in the National Gallery; and No. 276 is a fine example of another rather favorite treatment of Turner's—the piling up of a castle or a powerful group of buildings on an eminence in the very center of the picture, to which everything else is subordinated. This treatment is also seen in the beautiful miniature landscape in Raphael's little picture called the "Vision of a Knight," No. 213 in the National Gallery, where the effect of the castellated rock is contrasted with that of the humbler houses seen nestled in the valleys beneath. The effect of a whole town clustered into a valley in this way is very picturesque, giving a home-like air of repose and security; there is an instance of this in Gaspar Poussin's large picture, "An Italian Landscape," No. 161 in the National Gallery. A charming instance of this effect is to be seen from the top of the hill to the east of Hastings, beyond the old town, where you look down and see the old town in the hollow between the two steep rounded ranges of grass-covered hills, as if the town had all flowed down to the bottom and remained there like water in a lake. For what may be called an effect of level and parallel composition there is nothing more perfect than is to be seen in various corners of Cambridge; the quiet-looking level ranges of buildings seem to go so well with the beautifully-kept green lawns; I would mention particularly the view of Clare College from the back of King's with its white stone façade, combining to some extent the sentiment of both Gothic and Classic architecture, rising above green verdure, and the river just by to complete the picture. I wonder this beautiful bit has not been painted oftener; the only picture of it I can remember seeing was, oddly enough, on the act-drop curtain at Toole's Theater, during the performance of "The Don," where it was introduced, I suppose, as a piece of "local color"; the selection did credit to the judgment of the scene painter, though the subject can hardly be said to have been done justice to.

The question of *scale* is a very important one in regard to the effect of a building on the landscape; the main point being that a building should be designed so as to show its size, and not appear to be smaller than it really is, as in that case it will tend to cause a deception as to the scale of the landscape also. I give a sketch (Fig. 18) of an extraordinary instance of this from a neighborhood I once spent some time in, where what appeared to be a cottage with a gabled roof was a conspicuous object on the side of a long, low, wooded hill. It began to strike me at last that it was curious that this cottage was always so conspicuous from all parts of the country, and at last I visited it and found it was a large engineering work, a stone reservoir with a low-pitched single-span roof and a small tower at one end of

it, much farther off and standing on a much larger hill than I had ever suspected; for, of course, the idea that it was a cottage, which it exactly resembled in the distance, gave an entirely false conception of the scale of that portion of the landscape. This was an extreme case; but in general, it may be said, the larger you can make your building appear, in respect to its actual size, the larger will the adjacent landscape appear. A similar complaint about destroying the scale of the landscape has been made against another engineering work, not in regard so much to its design as to

its actual and positive size; for a resident in the neighborhood of the Forth Bridge works complained to Mr. Baker that he was "dwarfing the hills," which is certainly the case. However, the scenery bordering that part of the Firth of Forth is not of a very romantic character, and I confess I find the bridge the more interesting study of the two.

In regard to the harmony of tone and color between the building and the landscape, this is best secured by using local building material where possible; and where the local material is not good enough for the purpose, by using something as nearly resembling it as possible in tone and surface. There is no material like stone for building in the country, in regard to harmony of tone and surface, since stone, however you may shape and carve it, is still a natural material with a natural tint and texture. Patent compressed brick of various types and colors may be very well in towns; it seldom harmonizes with a rural landscape, as it is an essentially artificial material; and nothing can be more intrusive in a landscape than the style of modern country house we frequently see, of what is called "brick with stone dressings," spotty in effect and showy in color, like the mansion of the rich suitor in "Maud," which set the neighborhood all agape:

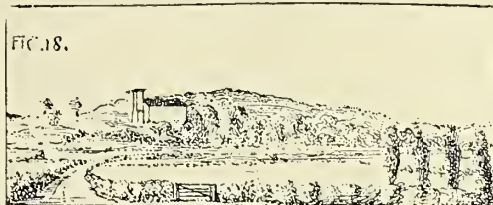
"Seeing his gewgaw castle shine,  
New as his title, bought last year,  
There amid perky larches and pine  
And over the sullen-purple moor  
(Look at it) pricking a Cockney ear."

A pretentious building in a town is bad enough, but in the country it is ten times worse; it is a sin against the breadth and repose of nature; and even a building which would not be felt as pretentious amid the crowd and bustle of the town may appear so if transferred to a rural landscape.

I will now invite you to look at some views of actual scenes in which architecture plays a part, and see if we find anything there to illustrate the subject further; commencing with a few views of town effects.

Commencing again from the architectural survey of towns, the general views of Milan and of Florence may be compared, as serving to show what a grand feature a large dome forms in the *ensemble* of city architecture. Milan, with no great dome, wants the most striking feature in the views of Florence and Rome. This importance of the dome in city architecture was very well brought out by one of the architects who took part in the late competition for the proposed cathedral at Liverpool, Mr. Emerson, in the essay attached to his design, the principal feature of which was a large dome. I give a view of the dome of St. Peter's on a larger scale as contrasting with horizontal lines of building in the foreground; and the view of the façade of St. Peter's, taken centrally from a point on the axis of the building, will show at once how impossible it would be to treat that kind of architectural design otherwise than symmetrically. The view of the Panthéon at Paris, seen also centrally from the street directly fronting it, shows the same symmetrical composition, but without the special treatment of the foreground architecture so as to harmonize with the central building; instead of the decorative colonnades flanking the approach to St. Peter's, we have here only a line of ordinary street buildings on either hand; the architectural scenery is incomplete, and the centralizing of the main building with the street is of much less consequence in this case, though, as the street lines are formal and regular (not like the broken sky-lines of Ludgate hill leading up to St. Paul's), there is some logical reason for the symmetrical treatment of the building in relation to the street. The arch and the two columns of the Place du Trône form an example of formal and symmetrical architectural composition arranged purely for effect—somewhat academical, perhaps, but still with a certain stateliness of effect which has its value at occasional points in a city. The views showing the Vendôme Column, Venice with the Campanile prominent, and Westminster bridge with the clock tower seen at the end of it, all serve to illustrate the fine effect of vertical objects rising in contrast to horizontal base lines; but in the case of the Westminster clock tower, seen from the further side of the river, it will be observed that the effect of the clock tower in this respect is much diminished by the pavilion towers at the adjoining end of the houses of parliament interposing, from this point of view, so as to dispute supremacy to some extent with the clock tower. If you want a tower to tell powerfully, keep everything in the same view rather low, so as not to interfere with it.\*

\*An illustration of this is furnished by the different effect of "Cleopatra's Needle" as seen looking along the Thames embankment, where its height tells very effectively, and as seen looking from the terrace of the Adelphi, where it is brought into competition with the shot-tower on the other side of the river, which nearly neutralizes its effect.





The contrasting effect of a horizontal and vertical style of architecture is well shown in the view of the Palais de Justice at Paris, with the Saint Chapelle rising behind it; the two are entirely out of keeping in style, no doubt, but in composition they help each other. A street view in modern Paris will furnish us with an example of the dead effect of long horizontal street buildings with no variation in skyline or design, as contrasted with the picturesque effect of a view in one of the streets of Ghent, with its succession of gabled houses all with a certain harmony of style and manner, but each with its own special interest in design and detail. The view of one of the quays at Amsterdam shows the picturesque combination of architecture, trees, and shipping, seldom seen in England, though Great Yarmouth, so curiously Dutch in some of its characteristics, affords an instance of it. The view of High street, Oxford, a street the picturesque beauty of which has been consecrated by a splendid line in one of Wordsworth's finest sonnets—

"The stream-like windings of that glorious street"—

and of which an eminent German art critic (Dr. Waagen) said that it "had not its equal in the whole world," is as fine an example as we could have of the beauty of a street of fine buildings laid out in curves in this manner.\*

The view of the main street at Innsbruck, with the mountain filling up the background, and the monumental column in the center of the street relieved against it, is probably one of the finest combinations of town and natural scenery in existence, and may form a kind of connecting link between the town and the country portion of our illustrations. But we may properly commence our country architecture illustrations with some cottages (from the New Forest) representing the simplest type of rural buildings; a nest rather than a house—the beauty of which is that, being a habitation made by human hands, it nevertheless appears to be actually blended with nature, so that all sense of its being an architectural intrusion on the landscape is lost. Two small Thames-side country inns illustrate the most simple style of rural architecture; though more architectural than the previous cottages, they are without "design" in the usual sense, and it is this absence of symmetry or consciousness of design which harmonizes them with the quiet landscape in which they stand:

"rura quæ Thamesis quietâ  
Mordet aquâ" —

to adapt Horace a little. The views of part of the buildings at Wadham and Brasenose colleges exhibit an architecture equally quiet and unostentatious in regard to detail, but with that degree of symmetry which harmonizes it with an artificially formed site, and with carefully kept lawns; while the new buildings of Keble college illustrate want of repose in a similar situation; admirable in their way, these are essentially street architecture for a crowded town, and the bustle of detail and wall-patterns everywhere is quite out of harmony with the character and feeling of an old collegiate town. Take bridges again, which are a form of architecture very closely connected with landscape: The old one-arch bridge of Doon, which may be said to represent the most abstract form of bridge building, is perfectly devoid of architectural pretense, but there is a certain character in the bold sweep of its arch, and it rather adds to than interferes with the beauty of the romantic scenery in which it is introduced. A common modern contractor's bridge, with a thin iron railing on the coping, like that of which I exhibit a view (over a waterfall near Spa), shows how this kind of bridge can vulgarize even so beautiful a natural object as a waterfall. Some of the Thames bridges form a kind of transition series from one stage to the other; at Wallingford and Sonning we have the solid but unostentatious form of stone bridge which painters find delightful—it is not the best practical form, certainly, for it interrupts too much of the waterway. Kingston and Richmond bridges are fine examples of a more stately order of picturesqueness. London bridge, in its stern unadorned massiveness, and the grand sweep of its arches, is, as Street said of it, "a sublime bridge." In contrast with these we have the modern railway viaduct, a straight bar carried across the river on the top of a set of iron funnels; or we have such a gimcrack design as Chelsea suspension bridge, with its pepper-box turrets, a blot on any picture; or the still worse vulgarity of the new Hammersmith bridge, built up with iron plates to imitate stone, and with gigantic iron castings like carved consoles; bad even if they were really carved, as out of all scale; ten times worse as cast imitations.

As an example of the effect of a bridge in composition with other architecture, nothing could be more charming than the view of Hereford cathedral and bridge from the river, the cathedral rising above the bridge, as described in a passage in Tennyson (who is full of fine bits of "architecture and landscape"):

"A slow, broad stream,  
That, stirred with languid pulses of the oar,  
Waves all its lazy lilies, and creeps on,  
Barge-laden, to three arches of a bridge,  
Crowned with the minster-towers."

The views of Richmond castle and bridge, and Twisel bridge, with the château seen over it, form two other examples of this kind of combination.

Water, in combination with architecture, lends itself very well to symmetrically planned effects, as in the view looking up a long, straight canal near the Hague, with a distant tower placed (whether designedly or not) exactly axial with the line of the canal. A comparison of one or two Classic buildings in connection with water, as

\* The effect of a slight deviation from a straight line is seen in coming westward along Fleet street, which takes a slight bend southward at the end next the Law courts, so slight that one would not notice it except on looking along the street; but the bend is sufficient to bring the Law courts tower into the center of the vista, whereas it would otherwise have been half hidden by St. Dunstan's tower; as it is, both are seen in combination.

the house of representatives at Brussels, and Fontainebleau reflected in its moat, with Gothic examples in a similar position, seems to show that Classic architecture goes best with such a situation; the east gate at Delft, and the water gate at Hoorn, are most picturesque in themselves, but they hardly seem to gain so much from juxtaposition with water. Various lake scenes which are exhibited bear out, I think, what has been said as to the pleasing effect of low level architecture by the margin of a lake, and sheltered by hills; and in one or two examples, as in the view of Goarhausen and Katz castle, we see the same contrast that has been previously referred to, the level and quiet-looking buildings at the foot of the hill, the massive, rock-like castle near the top. The view of Villa Clara at Baveno, embowered in trees, shows exactly the kind of building that is not suited to such a site; a piece of spikey modern Gothic, completely out of place among trees.

The views of Norham and Neidpath show how well this massive castellated architecture goes with hilly scenery, and in a few continental mountain scenes that are shown will be seen examples of the simple and rather rustic kind of church spire which is frequently built in hilly country, where, as before observed, a spire of the monumental type is rarely, if ever, found.

The temple of the Sibyl at Tivoli is a remarkable instance of a very delicate and graceful bit of Classic architecture placed on a precipitous rock; the character of the scene, however, is softened by the masses of foliage which enter into it, and the temple does not look out of place in it; it, perhaps, wants a little more architectural connection with the rock. The Parisians have made a sort of pseudo-edition of this effect on the hill of Buttes-Chaumont; not nearly so fortunate an experiment as another little pseudo-temple, that on the wooded island below Henley regatta course. In reality, of course, this is a mere bit of Classic sham, very bad in detail; but as seen from a distance, it is so charmingly placed that one can only wish it was real architectural "event" in the scene.

The views of the remains of some of the Cistercian abbeys—Tintern, Byland, and Fountains—illustrate what has been said as to the harmony of this early Gothic architecture with the secluded and wooded scenes in which these abbeys were mostly built. Norwich and Salisbury show the effect of lofty pyramidal buildings; and Durham and Lincoln that of towered cathedrals, of square and solid design, placed on high ground.

The early medieval castles, with their massive towers and absence of any obtrusive architectural detail, form very important objects in a landscape, and when placed, like Kenilworth and Corfe, on a boldly-rising site, they nearly always have a fine effect in the scene. The Norman tower at Kenilworth is like the cottages before shown, an instance of a kind of *rapprochement* between nature and architecture, though in a very different sense; it is so massive in construction, so broad and simple in design, that it rather suggests a natural rock than an artificially erected building. A castle of this type in a flat landscape loses much of its effect, and perhaps nothing in the way of architecture and landscape can look more waste and melancholy than Bodiam Castle with its blank masses of wall rising out of marsh and water. The view which I give of part of Carisbrook shows how well, on the other hand, this massive castellated architecture combines with thick foliage. In the view of the remains of Launceston Castle, we see nature finally reasserting her reign; all the architectural form of the walls and towers remaining is obscured under the soft, rounded outlines of the foliage growing over it, and before a very long time has passed, if it is left undisturbed, there will be nothing to show that there was ever anything but a green hill. We began with cottages so simple in character as to seem almost a part of the natural landscape; we end with an example in which the landscape is quietly taking the building, once a giant intruder, under its green mantle, and assimilating it. We may discuss the relation of architecture and landscape on equal terms, if we please; but nature bides her time, and after a few centuries more or less (nothing in her annals) the architectural addition is gently effaced from the scene, and man has to begin his combinations of "architecture and landscape" over again from a new starting point.

### The Sheridan Road Project.

WHAT will eventually be one of the finest driveways in the world was projected at Chicago some months ago and is now under way toward completion. The project was the outcome of a suggestion by some public-spirited citizen, and rapidly took form in the incorporation, under the laws of the state, of the North Shore Improvement Association, without capital stock. The object was to construct a drive from Chicago northward, along the shore of Lake Michigan, to Waukegan, a distance of thirty-six miles. Early in the history of the project it was called, by Mr. Cyrus Kehr, one of its most enthusiastic advocates, "the Sheridan Road," probably suggested by the Fort Sheridan military post, located about twenty-five miles north of the city.

The topographical features of the country bordering the lake are singularly adapted to the success of the project, which aims to give to the people a well-kept drive that will include the greatest variety as well as beauty of scenery. Commencing as an extension of the already famous Lake Shore drive, bordering the North Side in Chicago, the road will run through a thickly-populated country for twelve miles, to the old university town of Evanston. The ground is sandy, and lies in closely arranged ridges covered with a scrub oak growth, with low ground between, which were formed by the receding waves of the lake. At Evanston these ridges combine and disappear in a general rise, reaching about thirty-six feet above the lake. Continuing northward, the ground rises and holds a level of about fifty feet, with an abrupt lake bank for five miles, till Winnetka is passed. The



road through Evanston will wind along the lake, make a detour around the Northwestern University campus, a tract of fifty acres covered with magnificent white oak trees, past the Gross Point lighthouse, a light of the second class and the best on the great lakes, and then along the wooded shore of the lake. Winnetka passed, a sharp rise brings the road to an average elevation of one hundred feet above the lake. The remainder of the distance to Waukegan the road will wind through forests of towering oak, maple and ash, with an undergrowth that includes almost every tree indigenous to this latitude. Deep ravines are met with at almost every furlong of the entire distance, each with its banks lined with trees, undergrowth and rich mosses, and each with its brook, musical and cool, running its stone-obstructed way to the lake.

Two miles from Winnetka is Glencoe, small in population but beautiful in natural surroundings; five miles farther north through the suburb of Ravinia, Highland Park is reached. Here the first attempt to improve on nature is found in the work of the landscape architect who has cultivated the natural beauty of the highlands. One mile beyond Highland Park the military post of Fort Sheridan is located. The reservation fronts half a mile on the lake and reaches one mile inland. It is being improved at an outlay of \$300,000 in buildings alone, and will, in a few years, rival West Point in beauty as it now does in location. Lake Forest, at half the remaining distance, has long been the summer home of some of the most wealthy of Chicago business men, and here the natural beauties of forest and ravine have been cultivated to the highest degree.

Let the mind follow this shore over the thirty-six miles described and it will readily see the possibilities for a magnificent driveway. Long stretches of flat boulevard between groups of residences of varied architecture, with well-kept lawns, then plunging into the suburban country, the lake ever on one side and the fields and woods on the other, then the steep ascent, the view of the lake from the promontory above, a sharp turn and the road becomes lost amid the forest trees of the Hubbard woods, and then the ever changing route over bridges spanning the deep ravines or down into their solitudes by winding roadway. This is the drive from Chicago to Waukegan over the Sheridan Road of the future.

The road will be completed to Evanston before fall, with, perhaps, portions of it beyond. It is proposed that the association then place the road in the hands of the Lincoln Park board, which now controls the drive within the city limits, as it is hoped that this will secure that uniformity which is vitally necessary to the ultimate success of the project. A landscape architect should have charge of the entire route. No amateur should be allowed to experiment upon sections, as any defect in a portion will injure the whole, and the ravine country should, as far as possible, be left in its primitive state; yet no one but a landscape architect can possibly lay out the route through these ravines so that the greatest variety of view can be obtained and still overcome the natural difficulties that will be met in laying out and maintaining a permanent roadway. One peculiarity of this project is that those to whom it owes its inception and present direction are not large property owners on the proposed route, and are merely public-spirited citizens. In fact, when the right of way was sought it was with the largest property owners that the greatest trouble was experienced. These, however, speedily saw the great value the opening of such a road would be to their property, and the right of way has been secured over the entire distance, with the promise of liberal help in the construction of the road.

### Association Notes.

#### EDINBURGH ARCHITECTURAL ASSOCIATION.

On April 20, the members of the Edinburgh Architectural Association, under the leadership of Mr. Thomas Bonnar, visited the ruins of the ancient parish church of Gogar, only a small part of which exists, the parish itself having been suppressed and incorporated with those of Corstorphine, Kirkliston and Ratho. Mr. T. Bonnar gave a brief sketch of its history from its formation to 1599, when, being unable to support an incumbent, it lost its independence. Allusion was also made to the historical interest of the locality as having been the scene of the artillery duel between the Scottish forces under General Leslie and the English army of Oliver Cromwell, resulting in the latter being compelled to withdraw his troops and retreat to Musselburgh. Gogar House was next visited, and Mr. Bonnar remarked that it was a unique example of the Scottish baronial type of architecture belonging to the early part of the seventeenth century. Particular attention was directed to the hand-wrought plaster work on several of the ceilings and cornices, and also to the paneled work of the interior walls, and painted decorative panels in light and shade. Subsequently, the party proceeded on foot to Riccarton House, the seat of Sir James Gibson Craig, where Mr. Bonnar pointed out the ancient square tower, which is historically interesting from its having been bestowed by King Robert the Bruce on his daughter as part of her dowry on her marriage with the Steward of Scotland. The main building is of modern construction, in the Elizabethan style, from plans of the late Mr. Burn, architect. Mr. Bonnar called the attention of the visitors to the collection of portraits, which is very fine, notably the Raeburns.

On the afternoon of May 18 the members of the Edinburgh Architectural Association, to the number of about fifty, paid a visit to Arniston House and Temple church. At Arniston House, where the party was received in Mr. Dundas' absence by Mr. Cook, the steward, Mr. David MacGibbon acted as leader. He pointed out that in visiting the celebrated mansion what was principally to be observed and admired was not so much the architecture proper as its accompaniments and accessories in the beautiful surroundings and

tasteful illustration of the landscape gardener's art displayed in the park and policies. The fine natural advantages of the valley of the Esk had all been rendered available in connection with the site of the mansion-house, but what specially called for attention was the noble result of the foresight of the proprietor and of the artist—Mr. William Adam—who guided him in laying out the park in 1726, at which time also the same artist prepared the plans of the mansion. The edifice showed the arrangement common at that period, of a central block containing the principal apartments, and two wings, in which were situate, on opposite sides, the kitchen and stable offices. The wings were originally joined to the central block by corridors, which, however, being found inconvenient, were altered to two stories in height. The kitchen is about 100 feet from the dining-room, and in order to avoid the constant running backward and forward of the servants a small railway had been laid down from the kitchen to the service-room, and dinner was brought up on miniature trucks driven by a windlass. After a short stay at Arniston House, the party continued their walk through the policies and up the valley to Temple Church, where they were received by the Rev. J. W. Blake, the minister of the parish. Mr. Archibald Macpherson, who took Mr. MacGibbon's place as leader, explained that the small rural church, roofless and ruinous as they now saw it, was all that remained to indicate the seat of the perceptory—the headquarters in this country—of the famous order of knightly monks from which it took its name. The building as it now stood could not, however, be attributed to the time of the settlement of the Templars in that place, which was the twelfth century, because the detail generally was that of the following century, and it was conjectured that the Knights of St. John had more to do with the architecture of the church than their predecessors. Before the erection of the present parish church, and for two hundred years and more, the building was occupied as the parish church. The party returned to Edinburgh early in the evening.

#### THE DETROIT ARCHITECTURAL SKETCH CLUB.

On May 15, the club gave a banquet to the members of the Michigan State Association of Architects. After an excellently prepared dinner, remarks were made by Architects J. M. Donaldson, A. J. Van Leyden, Z. Rice, A. H. Scott and others, in which the purposes and work of the club was commended. J. B. Nettleton, the retiring president, made some happy remarks, after which the company inspected a large exhibit of drawings representing the club competition work of the past year.

At the second annual meeting of the club the following officers were elected for the ensuing year: President, T. B. Laist; vice-president, W. B. Stratton; secretary, C. A. Fullerton; treasurer, Richard Mildner; executive council, Jean A. Hackett, Maxwell Grylls and James B. Nettleton.

The club begins its second year in a prosperous condition, its membership including the best draftsmen in the city.

#### CHICAGO ARCHITECTURAL SKETCH CLUB.

The regular meeting of the Chicago Architectural Sketch Club was held June 3. The order of exercises of the evening included a paper upon "Architectural Aspirations" by George Beaumont, but this was postponed indefinitely, the chair announcing that a death had occurred in Mr. Beaumont's family.

The water-color class exhibited the class work of the past course under the direction of Mr. Arthur Dawson and Charles E. Boutwood.

The committee on the Phimister medal for competition among members of sketch clubs was appointed, consisting of Architects John W. Root, W. L. B. Jenney and L. H. Sullivan, with the request to present the problem at the next meeting of the club. The Phimister medal competition will be closed September 23, 1889.

At the request of the Columbus, Ohio, Sketch Club, the club will send a number of club competition drawings to their annual exhibition. The competition for a twenty-five feet city residence front, in French chateau style, was closed.

#### NATIONAL ASSOCIATION OF BUILDERS.

William H. Sayward, secretary of the National Association of Builders, is on his way west visiting the builders in Chicago, Milwaukee, St. Paul and Minneapolis, and possibly, upon his return trip, the cities of Pittsburgh, Washington and Baltimore will be visited. A number of the cities farther west will be visited in the fall. Mr. Sayward's presence will greatly stimulate the local exchanges, and his counsel will be of value to those that are so fortunate as to receive a visit. Mr. Sayward addressed the members of the Chicago Exchange June 8.

### New Publications.

THE THEORY OF THE CONTINUOUS GIRDER. By MALVERN A. HOWE, C. E., New York: The Engineering News Company.

This is another contribution to the literature of the continuous girder, about which so much has been written during the past few years. Its design, in its own words, is "to present a complete mathematical treatment of the theory of the continuous girder under any conditions." The subject appears to be thoroughly worked up, and a great deal of labor and ingenuity has been expended upon it. It impresses one as the work of a thorough and conscientious engineer who understood his subject, gave his whole powers to it, and developed original and novel methods of treatment. Such monographs are a real addition to our knowledge.

The subject of the work, though valuable to engineers, has no special interest for architects, indeed, does not fall within the limits of their profession, and would not be attractive to our readers. We have, therefore, made but a hurried and cursory examination of it, but even this shows that it is a valuable addition to our engineering literature.



### Our Illustrations.

Union depot, Pueblo, Col.; Sprague & Newell, architects, Chicago.

Bits from foreign architecture, sketched by E. B. Nolan, Rochester, N. Y.

Residence of G. W. Maher, Woodlawn Park, Ill.; George W. Maher, architect, Chicago.

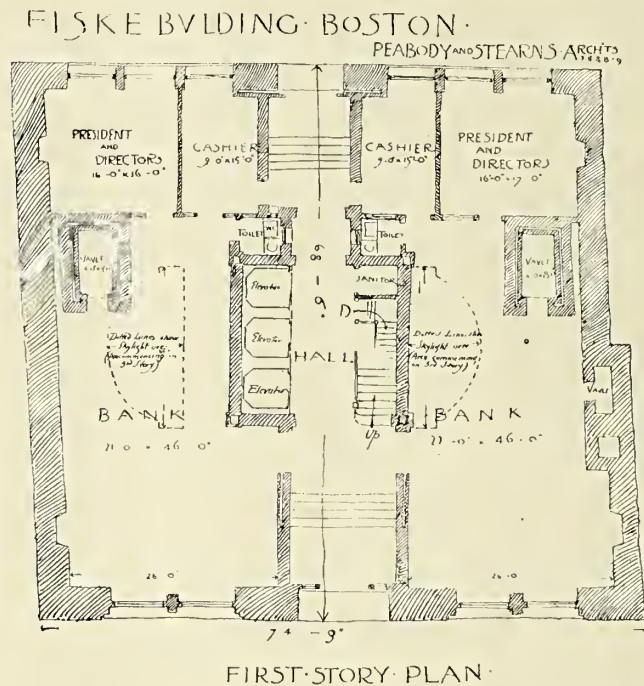
Residence for Charles Dissel, Wynnewood, Pa.; Albert W. Dilks, architect, Philadelphia, Pa.

Chicago Architectural Sketch Club competition for terra-cotta vase; first place, A. Heun; second place, O. C. Christian; third place, W. G. Williamson; other designs published, submitted by C. A. Kessel and by C. B. Schaefer.

Design for First Regiment Armory, Chicago; Burnham & Root, architects. First thirty-five feet above ground to be of large blocks of rock-faced brownstone. The remainder to be of vitrified brown brick. The large sally port is the only opening in the four stone walls, and the reveals of this port are 10 feet deep, and the opening itself 40 feet wide. The door is protected by a portcullis of chains and bars of steel, which can be raised out of sight. The base of the windows above the stonework are 6 feet from the floor, and have long narrow slots running downward through which riflemen can fight when the occasion demands. In the brick walls above are several small windows for light and ventilation, protected by heavy basket gratings, as are the rifle slots in the ones below. Four great bastions crown the angles of the fortress from which soldiers may deliver an enfilade fire on any side of the walls. The top of the walls is surmounted by a medieval cornice or parapet. Projecting as it does over the wall proper, and penetrated at the base with rifle slots, a handful of men could withstand an army. The entrance opens onto the drill floor, 150 feet by 168 feet in surface. The sides of this room are inclosed by walls of red brick extending to the second floor. A huge baronial fireplace is at one end of the room and there is a band balcony. A smooth-finished black oak floor reflects the light from a 120 by 70 feet skylight above the third floor. Galleries extending around the second and third floors form an immense court. The two stories above, reached by a broad staircase on either side of the main entrance, have rooms about the court, opening on the galleries. In the second story are the colonel's and officers' headquarters, with bathrooms and orderlies' ante-chamber adjoining. On the same floor is a large room for the board of officers of the regiment, which may be used, when the occasion demands, as a banqueting room, kitchen and serving rooms being connected with it. On either side of the colonel's room are the rooms of the lieutenant-colonel, quartermaster, chaplain, inspector of rifle practice, major and surgeon. In the northwest corner is the library. Twelve company club rooms, each 20 by 40 feet, with fireplace, and the captains' private room are also on this floor. On the third floor, immediately over the club rooms and connected with them by staircases, are the lockers of the companies, each separate from the other. In the front center of this floor are locker-rooms of orderlies attached to colonel, adjutant, quartermaster, surgeon, engineer, and the hospital. At the right of the building is the spacious room of the veterans, and in the left the gymnasium, which in case of war is to serve as a hospital. The rear of this floor is given up to the drum and bugle corps and a shower bath capable of admitting twenty men at a time. Two rifle ranges, with six targets each, are in the basement. The targets are backed with iron so arranged that bullets, after performing their mission, drop into a hole, where they are gathered and remolded. In the center of the basement are four bowling alleys. On either side are closets, storerooms, heating apparatus, and ammunition and armor vaults. An hydraulic elevator provides an easy ascent to the upper stories. From the basement is the only entrance, except the main one, to the building. This is so amply provided with gates, bolts and locks that any attempt to force an entrance would be practically an impossibility.

The Fiske Building, State street, Boston, Mass.; Peabody & Stearns, architects, Boston, New York, St. Louis. Boston capital, doing much continually toward building up many of our great western cities, has, until within a few years, put up comparatively few prominent business buildings. Among the most important buildings erected here within the last two or three years, is the subject of our sketch, the Fiske Building. Erected on State street, the most important business and financial street of Boston, it has helped to add confidence in the permanency of this street's importance; and this, with the new Exchange Building, now being built on the same street, will materially help to insure the prestige for all time of the "Wall street of Boston." The Fiske Building is about 74 feet 3 inches by 68 feet 6 inches, and designed to contain banking rooms on the lower floors and offices above. It has entrances from State street and from Doane street, and is thoroughly fireproof throughout, including iron roof. The facade on State street, 74 feet 3 inches wide, is built of light warm pinkish gray granite, with dark slate roof, copper-riding, dormers and cupola, and elaborate wrought-iron finials relieved with gilding. The motive of the lower stories is somewhat Florentine Tuscan in feeling, with simple broad molded architraves about door and windows, with inner enriched iron architraves and pilasters, after simple Renaissance motives. Above, the windows are framed in systems by broad flat moldings up to a simple enriched cornice with balustrade, above which spring the two pavilions. Between these springs the main roof 64 feet from cornice to ridge, with a cupola crowning all, the finial of which is 212 feet from sidewalk. The cornice of the pavilions is 136 feet from ground. At sides of entrance and of ninth story arches, are polished red granite disks,

in enriched frames, which may be said to be the only purely ornamental details of the whole facade. The divisions of this facade strongly testify to the effectiveness of the simple *base, wall and frieze* treatment of buildings. It is seldom that utilitarian motives do not interfere with the execution of a roof of this description on a business building. It is exceptionally located for affording a good view of the facade, so that the full effect of the roof can be appreciated. Merchants' Row strikes State street at nearly right angle almost immediately in front of this building, so that at a short distance down this



FIRST-STORY PLAN

row, say at about the rear of Faneuil Hall (from which point this sketch was made), the roof is effectively seen. The monumental effect of this building cannot help but convince business men of the paying qualities of *good* architecture, and it is a valuable example of what simplicity of motive, consistently carried out, without unnecessary detail, and with *visible means of protection from weather*, can do toward making beautiful buildings consistent with the complicated business demands of our day.

J. A. S.

### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Market place, Brussels, Belgium.

Interior of residence of Mr. J. V. Farwell, Chicago; Burnham & Root, architects.

Residence of Mr. Thomas Lord, Evanston, Illinois; Burnham & Root, architects, Chicago.

Four full page plates of the court house and jail buildings at Pittsburgh, Pa.; the late H. H. Richardson, architect. The following views are given: Of court house, entrance on Ross street, grand staircase, supreme court room; of jail, main entrance.

### Mosaics.

ARCHITECT S. Linderoth, of Chicago, has removed to 85 Washington street.

THE Chicago office of the *Iron Age*, the *Metal Worker*, *Carpentry and Building* and *The Office* has been removed to No. 59 Dearborn street (northeast corner Randolph street).

ACCORDING to *Indian Engineering*, it is said that Mr. Henry Irwin, C. I. E., secretary and chief engineer to the Agent Governor-General, Rajputana and Central India, is to be the next consulting architect to the government of Madras.

A. J. BICKNELL, proprietor of Bicknell's advertising agency, 115 Broadway, New York, has just issued a "special" list of journals, illustrated weeklies and magazines, for the benefit of those who have materials to advertise that come within the province of architectural, building and kindred trades. The list embraces thirty-eight specialty journals.

LOUIS T. BRAMHOLD, of Chicago, the well-known illustrating artist, whose work has become familiar in all classes of art illustration, has issued a most artistically arranged portfolio of samples of his work, reproduced by the heliotype, wood engraving, half-tone, etching and pen and ink processes. Mr. Bramhold has removed his office to 81 Clark street, and he takes this elegant method of calling the fact to the attention of his friends.

CHARLES H. FROST, well known in Chicago, and, in fact, east of the Rockies, as the former manager of the Chicago Anderson Pressed Brick Company, is now general manager of the Union Pressed Brick and Terra Cotta Company, of San Francisco, California. The general offices of the company are at San Francisco, and the works at Vallejo. Architects on the Pacific coast need no longer envy their eastern brethren their opportunities for obtaining first-class pressed



brick and terra-cotta with which to execute their designs, as the accessibility of material has much to do with successful architectural practice, and in the manufacture of brick from special designs, Mr. Frost can always be relied upon to ably second their best efforts.

THERE will be on exhibition for a few days at the Jenney & Graham Gun Company, 53 State street, Chicago, a life-sized painting of a spotted brook trout. This splendid fish weighed when taken from the water 10½ pounds. It was caught at Lake Molechunkamunk, one of the noted Pangeley lakes, in the State of Maine. This is probably the largest wild brook trout ever taken on a rod and line in any American waters. Those interested in angling sports should not fail to see this picture.

A NOVELTY and a utility in house supplies, which is just being put upon the market, is an electric or pneumatic door opener, called "The Ostrander Door Opener." It is claimed to be simple, compact and positive in operation. The movement is a gravity one and is devoid of delicate springs or mechanism, and is so protected by metal sides that no foreign substances can get in to interfere with its working. Of course, it is understood these "door openers" are locks, to be put on exterior doors (or any others), and operated from any part of a house by an electric or air push button.

It may be of interest to those who have been looking for the publication in England of Audsley's dictionary of architecture, for which the American publishers, G. P. Putnam Sons, have taken some advance orders, to know that it may not appear for some time. The English publishers write the American publishing house that the editor has thus far failed to fulfill his obligations though he has received payment in advance from the publishers for the fourth and fifth volumes. The responsibility appears to rest with the architects who agreed to prepare the work for the press, and it was upon their confidence in these that G. P. Putnam Sons received orders.

In arranging a summer tour east, the advantages of "The Seaside and White Mountains Special," solid Pullman vestibuled train, via Niagara Falls, Thousand Islands, rapids of the St. Lawrence, to the White Mountains and the summer resorts on the coast of Maine, should not be overlooked. The train consists of Pullman Vestibuled Library Chair and Smoking Car, with bathroom and barber shop, Pullman Vestibuled Dining Car, and four magnificent Pullman Vestibuled Sleeping Cars, all lit by electricity, and without change of any car runs through solid to the coast of Maine, affording all the advantages of a personally conducted tour, all the luxuries of modern hotel accommodations, and a variety of scenery not equaled on the American continent. The capacity of the train being limited, accommodations therein should be secured early. This train makes its first trip Wednesday, June 26, and each Wednesday thereafter during the tourist season. Tourist tickets are now on sale. Call on or address E. H. Hughes, General Western Passenger Agent, Chicago & Grand Trunk Railway, 103 South Clark street, Chicago, Ill.

A CONTRIBUTOR in a former number of THE INLAND ARCHITECT, referring to the disposition or rather growing taste among architects for harmony of details everywhere throughout buildings, took occasion to refer more specifically to the marked stride in this direction seen in the manufacture of building hardware; fitting it to add to the *tout ensemble*, while losing nothing of its primary object of utility. Architects who are in the vicinity of extensive hardware establishments, particularly those making building hardware a specialty, are familiar with this art side of building hardware, but there are very many architects of merit who are removed from such opportunities, and who necessarily fail to grasp the possibilities that lie in this direction to add to their artistic reputation as house and home designers. However, this state of ignorance need no longer be compulsory, as the well-known Yale & Towne Manufacturing Company have issued a mammoth catalogue of 564 pages, giving over seven hundred excellently executed engravings of the product of their works, each engraving in fac simile size and representation of the several lines of goods made, all of which is as instructive and just as full of information as an inspection of the actual goods themselves would be. No doubt this handsome tome can be had on application to the company, and it would be a wise thing to have a copy in every leading architect's library, as the wares of this company are notoriously excellent and stand preëminent in the market. Accompanying this new catalogue is a detached price list, it seemingly being the object to issue others when changes in price require it.

At the Chicago building material exhibit, 65 Washington street, Dr. E. S. McClelland, of Paterson, N. J., the inventor, has upon exhibition a plumbing device worthy of the attention of architects, plumbers and house owners, which he has named the "Anti-Siphon Trap Vent," and which undoubtedly will revolutionize the present method of sanitary plumbing. Common usage is to "back-vent" the trapping, i. e., to run a line of piping from the back of traps to the outer air somewhere, but, as is well known from its aptness to siphonage, the method is largely a failure. The doctor has built upon the antipodes of the "backing" theory, that is to say, he has arranged to supply the necessary air from the *front* of the trap instead of attempting to do so from the back. This is the secret of his device. The device may be described, briefly, as a small vertical, cylindrical chamber of cast-iron attached, as one casting, to a connecting pipe-joint, the base of which is open, with the exception of a small groove running around the circumference, designed for a mercury chamber, and which, when mounted, contains a small quantity of that metal. Within this air chamber is a very light iron thimble resembling an inverted cup, whose edges, when at rest, by its specific gravity, drop into the above-mentioned mercury groove. The result is, as can be readily seen, a valve, when at rest, that excludes the outer air entirely from the piping and that must open by any demand of suction for the

intromission of any required quantity of air, and that, too, without disturbing the water seal of the trap, however small or violent the demand may be. A close scrutiny of the device in practical operation, as it is being shown at the exhibit rooms, discloses that it is entirely automatic in action, simple in construction, and necessarily must be practically indestructible. There is no room for doubt that it is not an entirely successful means to an end—that with its use siphonage cannot take place, and that it presents a scheme whereby a large bill of expense may be saved in the sanitary plumbing of a house.

## Synopsis of Building News.

**Alleghany, Pa.**—Architect J. Stillsburg, of Pittsburgh, has prepared the plans for a three-story Turnverein Hall, to cost \$27,000 to \$30,000.

**Chicago, Ill.**—Architect M. L. Beers: For L. A. Barstow, frame residence, at Hyde Park, 22 by 59 feet; three stories and cellar; third story finished throughout; first story in selected white oak, rubbed to furniture finish; balance finished in clear white pine; modern conveniences; first-class sanitary plumbing; hot water heat; cost \$5,500. For O. M. Powers, same locality, frame residence, 58 feet 6 inches by 40 feet; three stories and basement; principal rooms and halls of first story finished in various selected hardwoods rubbed to cabinet finish; other stories finished in selected clear pine; all modern improvements, including hot water heat; cost \$12,000. For District No. 1, Hyde Park, four-room schoolhouse, to be erected on Fifty-sixth street, east of I. C. R. R. track. The peculiarity of this building will be that it is to resemble in appearance a private dwelling, it being located in a private dwelling quarter, and the location being secured on these terms. It will be three stories high, with an area of 96 by 45 feet; the exterior construction will be stone, basement high, followed by pressed brick to the second story, and the remainder will be of slate; the interior finish will be in Georgia and clear white pine; cost about \$15,000.

Architect John J. Kouhn: For C. F. Jacobs, three-story flat building, at Fremont street, near Garfield avenue, 75 by 65 feet; cost \$10,000. For Rudolph Korner, flat building at Western and Warren avenues; cost \$10,000.

Architect W. A. Arnold: For Oak Park M. E. Society, church enlargement, transept across rear with wings; Gothic treatment; cost \$19,000. For C. E. Wiswall, Evanston, residence; cost \$5,800. For Professor Bennett, residence (under way); cost \$6,500.

Architect C. M. Palmer: For Mr. Maher, two-story residence, on Bowen avenue, 23 by 58 feet; cost \$7,000. For Dr. F. E. Waxham, three-story residence, 30 by 60 feet; stone façade; hardwood interior; furnace heat, etc.; cost \$10,000. For W. J. Porter, two houses to be erected on Oakley avenue, near Jackson street; cost \$12,000. For W. J. Anderson, four-story flat building, at Randolph and Morgan streets, 126 by 82 feet; exterior pressed brick and stone (work begun). For Edward S. Isham, five-story residence, to cost \$50,000.

Architects Wilson, Marble & Lamson: For Judge Anthony, four-story flat building on Dearborn street, near Chicago avenue, 25 by 75 feet, stone façade, all modern improvements, steam heat; cost \$15,000. For M. Graves, two-story residence; cost \$9,000. For J. S. Smith, Prairie avenue, near Thirty-third street, two-story and basement residence, 21 by 60 feet, stone façade; cost \$8,500. For W. H. Pruyon, South Park, near Thirty-fifth street, residence, to cost \$10,000. Drawing plans for a three-story residence on Prairie avenue, near Thirty-second street, 25 by 70 feet, brick, stone front, furnace heat, grates, mantels, electric work, etc.; cost about \$10,000. Also for a row of eight houses to be erected at Forest avenue, near Thirty-fifth street, to cost each about \$10,000.

Architect Adam Boos: For N. & F. L. Strosser, three-story and attic store and flat building, 46 by 61 feet, Sedgwick street and Tell court; cost \$15,000. For Jacob Reiss, three-story store and flat building, 24 by 56 feet, 235 Cleveland avenue; cost \$5,000.

Architect Titus Diethelm (South Chicago): High School building for South Chicago District, brick, stone and terra-cotta, galvanized iron, composition and slate roof, heat and ventilation Ruttan system, Smith dry closets, Georgia pine finish; cost \$32,000; contract let. Police and patrol station, common and pressed brick, buff Bedford stone trimmings, steam heat, etc.; estimated cost \$12,000. For Mr. Schnell, double dwelling, three stories and basement, St. Louis pressed brick and Bedford stone; cost \$4,000. For Martin Hausslet, double brick residence; cost \$3,000. For Mr. Thormeyer, frame cottage, brick basement; cost \$3,000.

Architect H. S. Jaffray: For P. M. Vermoss, two two-story and basement flats, 22 by 60 feet, at Paulina street near York. They will contain all modern conveniences; cost \$12,000.

Architect G. O. Gurnsey: For Max Hamburger, residence at Woodlawn avenue near Fifty-first street, stone and slate; cost \$6,000.

Architect F. L. Lively: For A. L. & F. D. Patterson, Cragin, Illinois; three cottages; cost \$4,500.

Architect H. Huehl: For Miss Kate Roberts, four-story store and flat building, 147 by 100 feet, brick and stone, wood mantels, grates, plate glass, electric work, hardwood interior, etc.; cost \$60,000.

Architect F. Alschlager: For Dr. L. Kirkpatrick, at Sixty-ninth street and Wentworth avenue, three-story store and flat building, 50 by 100 feet; cost \$20,000.

Architect C. J. Warren: For Dooley & Parker, on Calumet avenue, two three-story and basement residences, 41 by 64 feet each, brick and stone; electric work, mantels, furnaces, hardwood interior and all modern conveniences; cost \$15,000 each. For J. P. Olinger, at Thirty-fifth street, three-story flat building, 53 by 125 feet; cost \$20,000. For Dunlap Smith, four-story store and flat building, on Thirtieth street, brick with stone courses, copper bays, etc.; cost about \$35,000. For the Walsh estate, three three-story houses on Lake avenue, near Forty-seventh street, Bedford stone fronts; cost \$22,000. For Fred McNally, near Lincoln Park, three-story residence, 22 by 25 feet; Portage stone front; cost \$20,000.

Architects Schaub & Berlin: For S. Crane, at Dayton and Centre streets, two-story flat building, 22 by 57 feet; cost \$4,500. For Chas. Schultz, three-story flat building on Division street; cost \$5,500.

Architect O. Cobb: For Zimmerman Bros., La Salle, Illinois, four-story theater building, 60 by 105 feet; cost \$45,000. For Mr. Hoffman, Forest avenue, three-story flat building, 50 by 70 feet; cost \$12,000. For Mrs. Lees, Paulina and Fulton streets, three-story flat building; cost \$3,000.

Architect W. H. Drake: For Catherine Bronson, at Rush and Kinzie streets, eight-story warehouse building, 110 by 140 feet; first two stories will be fireproof construction with iron columns, in the remainder oak and Georgia pine posts and timbers will be used. The outer walls will be pressed brick and terra-cotta; cost \$60,000; contracts being let.

Architects J. T. & J. P. Doer: For C. R. Case, South Chicago, three-story and basement flat building, 75 by 80 feet; pressed brick and terra-cotta; cost \$25,000. For Mrs. Waite and Richardson, alterations on four buildings on Lake avenue; cost \$18,000.

Architects Ruhel & Gommilch: For Charles L. Gamer, five-story factory, 60 by 131 feet, at 26 to 32 Bratt street; cost \$15,000.

Architect E. C. Johnston: For J. J. Hill, on Grand Boulevard, three-story and basement residence, brick and stone, hardwood finish, wood mantels, tile floors, stained and plate glass; electric work, steam heat and modern appliances; cost \$10,000.

Architect N. D. Little: On hand, plans for six three-story and basement houses, 22 by 60 feet each, to be built on Ellis avenue near Forty-third street, pressed brick and stone, elaborate hardwood finish, furnace heat, mantels, etc.; cost \$72,000.

Architect J. M. Van Osdel & Co.: For Newman Bros., at Dix street near Chicago avenue, five-story factory building, brick and cutstone, steam heat, elevators, etc.; cost \$25,000.

Architects Pond & Pond: For Second Hopkins Company, at Kensington, two-story store and flat building, 150 by 71 feet; pressed brick and timber construction; cost \$20,000.

Architect W. W. Boyington: For C. B. Smith, on Drexel boulevard, two-story attic and cellar residence, 38 by 72 feet; a feature of the front will be a tower extending above the front parlor window; exterior will be of light gray stone, tile roof, hall and staircase marble, building throughout will be finished in keeping;



with a barn at the rear; the estimated cost is \$35,000. Has just let contracts for a new building for the Northwestern Military Academy at Highland Park; cost \$25,000. Also residence for Joseph Goldy, Guelph, Ontario, to cost \$20,000.

Architect M. L. Beers: For District No. 1, Hyde Park, two-story school building, 30 by 90 feet; to be built at Fifty-sixth street; cutstone exterior, slate roof; cost \$15,000.

Architect Jos. Huber: For H. Washburne, Astor street near Burton Place, residence; cost \$25,000. For W. P. Peterson, Fullerton avenue near Larrabee street, residence; cost \$8,000. Eighteen cottages for C. Steinbrecher, to be built on Huron street; cost \$25,000.

Architect T. B. Shelton: For Jonathan Clark, five-story and basement store and office building, 15 by 77 feet, southeast corner of Randolph and Canal streets; cost \$60,000. For W. Harless, at 1621 Wabash avenue, store and flat building, 23 by 60 feet; cost \$5,000.

Architect J. V. Benco: For L. Birmingham, at Paulina street, flat building, brick and stone, mantels, grates, electric work, hardwood finish, etc.

Architect F. Foebringer: Taking figures on four-story and basement bakery building, to be erected on Clybourn avenue, pressed brick and stone, plate glass, dumb waiters, freight elevators, steam heat, etc.; cost \$40,000.

Architect H. D. Dean: For Judge Baker, at Lake avenue and Third-sixth street, three-story residence, 26 by 48 feet; brownstone, pressed brick and terracotta, interior hardwood finish, steam heat and modern conveniences.

Architects Holabird & Roach are preparing plans for an eleven-story building, to be erected at Dearborn and Harrison streets by the Brooks estate of Boston, Mass. The structure will be absolutely fireproof; the columns and beams will be of steel, and the floors laid in tiles. The outer walls will be of brownstone and granite. The first floor will be adapted for stores, and the remainder to light manufacturing purposes, to be in the future changed when the time arrives to office purposes.

Architect W. L. Brainerd: For E. L. Brainerd, three-story hall building at Brainerd, Ill. For J. A. Mulvey, house at Highland, Ind. For W. B. Albright, three houses.

Architect W. Strippelman: For D. Yamansky, three story store and flat building, at 1002 Harrison street, pressed brick and stone; cost \$7,000.

Architect S. V. Shipman: Six two-story dwellings, 86 by 125 feet, to be erected on Warren avenue, brick and stone, hardwood interior, wood mantels, furnace heat, etc.; cost \$30,000. Warehouse, two stories and basement, 75 by 114 feet, at South Green street; cost \$32,000. Letting contracts for six-story and basement apartment house for E. Ulrich; cost \$55,000.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

While it is a little too early to figure on the year's business, yet the good indications of the early part of the season seem to keep up. In my rounds, of course, I hear complaints in some branches of trade, which can easily be explained when it is said that style changes frequently as regards constructive materials. To explain more fully; some persons prefer frame and plaster because it looks well and is cheap; this makes the bricklayer partially idle; again, brick and stone is quite the rage, which causes a cry of dull times from the carpenters and plasterers. Thus we could go on and still find no branch fully satisfied. Industry after all is the surest and broadest road to success in anything. All mechanics will find "perseverance and sweet oil" two excellent family remedies. A tour of the architects' offices shows a most hopeful feeling existing, backed up by work.

A. O. Elzner reports: For Dr. Samuel Nichols, city, a residence of pressed brick and stone, thirteen rooms, hardwood finish, furnaces, wood mantels, plumbing, slate roof, plate glass, etc.; cost \$6,000. For James Gray, city, a store and flat building, iron and brick, twenty-four rooms, pine finish, grates, dumb waiters, tin roof, plumbing, etc.; cost \$7,500. For Miss Sallie L. Cook, Walnut Hills, city, a double brick residence with plaster gables, pine finish, wood mantels, plumbing, slate roof, plate glass, inside blinds, furnaces, etc.; cost \$8,500. For Wm. H. Besuden, city, a frame residence with shingle sides, hardwood finish, ten rooms, slate roof, wood mantels, furnaces, etc.; cost \$5,000. For Alexander Offner, Avondale, Ohio, a residence of seventeen rooms, brick or stone, hardwood finish, blinds, wood mantels, dumb waiters, slate roof, etc.; cost \$10,000. Busy on sketches.

Architect S. S. Godley reports: For Chas. H. Resor, Price Hill, city, a frame house, ten rooms, wood mantels, pine finish, furnaces, electric bells, slate roof, etc.; cost \$4,500. For Charles Fleischman, city, a frame house, eight rooms, slate or wood mantels, pine finish, no plumbing, shingle roof, etc.; cost \$2,600.

Architect Thornton L. Fitzhugh reports: For the Big Four R. R. a passenger depot, at Delhi station, Ohio; brick, stone trimmings and tile roof; size 21 by 37 feet; contractor, John C. Carter. For S. Ullman, Esq., a double brick house, of nine rooms each; stone trimmings; pine finish; slate and tin roof; plumbing, etc. Mr. Fitzhugh will give particulars of house at Delhi, to be of frame and shingle; to have plaster gables, slate roof, stained glass, etc.

S. E. Des Jardins reports: For the Grand Avenue and Park Company, Newport, Kentucky, a casino; frame; two stories; pine finish; shingle roof; plumbing; billiard tables, etc.; cost \$3,000. Parsonage for Clifton Presbyterian church, of pressed brick; terra-cotta; stone trimmings; furnaces; stained glass; wood mantels; laundry and gas fixtures, etc.; cost \$6,000. For J. H. Durrell, Walnut Hills, city, a frame residence, two-and-a-half stories; furnace; plate and stain glass; tile floors; wood mantels; slate roof; laundry fixtures, etc.; cost \$10,000.

W. W. Franklin reports: For E. C. Gibbs, city, a frame residence, two-and-a-half stories; pine finish; stained glass; slate roof; mantels; blinds, laundry fixtures, etc.; cost \$7,000.

**Detroit, Mich.**—The present condition and outlook is very fair. Most of the architects have plenty to do, and especially on a better class of work than has been the case for the past two years.

Architects Scott, Kemper & Scott: For Frank J. Hecker, three-story dwelling, 85 by 100 feet; stone front, slate roof; cost \$47,000. For Daniel Scotten, four-story factory building, 80 by 40 feet; brick, gravel roof; cost \$35,000. For R. Robinson, two-story double dwelling, 44 by 66 feet; brick and Bedford stone; slate roof; cost \$13,000.

Architects Donaldson & Meier: For S. A. Pratt, two two-story double frame dwellings, 40 by 50 feet; cost \$8,000. For E. Krapp, two-story dwelling, 45 by 60 feet; brick, with stone trimmings, slate roof; cost \$8,000. For A. Longo, two-story dwelling, 34 by 60 feet; brick, with stone trimmings, slate roof; cost \$5,000.

Architects Mortimer L. Smith & Son: For North Baptist society, one-story chapel, 57 by 57 feet; brick and stone, slate roof; cost \$8,000. For city of Detroit, two-story police station, 32 by 50 feet; brick, with stone trimmings, gravel roof; cost \$6,800.

John Brennan & Co., builders: Two-story dwelling, 38 by 62 feet; brick and stone, slate roof; cost \$6,000.

Jos. Knuth, builder: For German Lutheran society, two-story church building, 52 by 96 feet; brick, stone trimmed, slate roof; cost \$12,000.

Architect W. S. Vivier: Two two-story dwellings, 23 by 46 feet; brick, stone trimmed, slate roof; cost \$5,000.

Architects Hess & Rosemann: For Paul Weidner, two-story dwelling, 35 by 70 feet; brick, stone trimmed, slate roof; cost \$7,000.

Architect J. V. Gearing: For G. V. N. Lathrop, block of three three-story stores, 60 by 60 feet; brick, stone trimmed, gravel roof; cost \$12,000.

Architect G. W. Lloyd: For Mrs. Rust, two-story dwelling, 50 by 90 feet; stone, slate roof; cost \$30,000.

W. W. Schoville, builder: For Grand River Street R. W. Co., car barn, 52 by 135 feet; frame, shingle roof; cost \$5,000.

Architects Rogers & McFarlane: For W. C. Williams, two-story dwelling, 46 by 69 feet, brick and Bedford stone; cost \$20,000.

Architects Mason & Rice: For Mrs. Hammond, six-story office building, 100 by 60 feet; brick, stone trimmed, asphalt roof; cost \$72,000.

Sylvester & Tanner, builders: Double two-story dwelling, 35 by 54 feet, brick, stone trimmed, slate roof; cost \$4,500.

Architect J. V. Gearing: For Detroit Athletic Club, two-story gymnasium building, 62 by 104 feet, brick, stone trimmed, slate roof; cost \$5,000.

**Duluth, Minn.**—The building season is now fairly opened, and a fair estimate of the aggregate work can be arrived at. In round numbers the value of improvements made during 1889 will easily reach \$2,000,000 for Duluth proper, with full another \$1,000,000 for West Duluth and other suburban portions. Of the principal buildings in course of erection the chamber of commerce and masonic temple lead with an outlay of \$250,000 and \$200,000, respectively, though but three-

fourths of this amount will likely be expended before winter. The Palladio building comes next, with a cost of \$175,000, and the Pastoret & Stenson block at a cost of \$125,000. The Henderson block will eventually cost \$250,000, though present leases on buildings occupying its site will not permit of an expenditure of over \$50,000. Wieland Brothers will expend \$50,000 on their new business block, and the Lincoln school building will cost another \$50,000. Freight depots will cost another \$50,000, and \$50,000 is to be the cost of the new seminary. Two hundred thousand dollars is but a conservative figure to be expended in the west end in sums of \$2,500 to \$10,000, while contracts let for unenumerated buildings on Superior street and avenues to Fourth street will double this figure. The gas and water company promises to spend \$300,000 in improving its system.

Architects McMillan & Stebbin have prepared plans for W. W. Spaulding for a \$15,000 residence.

M. R. Baldwin will build a brick block for offices and stores, to cost \$10,000; Captain Barker, a residence of pressed brick and brownstone, to cost \$15,000; P. Cary, a two-story building with stone foundation, to cost \$5,000; Capt. J. H. Hurst, a two-story building for stores and offices; Angus McLain is commencing work upon a three-story building; M. L. Johnson, a two-story brick office building, to cost about \$8,000; C. Markell is about ready to put in the foundation for his new residence, which is to cost about \$18,000.

**Knoxville, Tenn.**—Architects Beaver & Hoffmaster have prepared plans for a six-story hotel building, to cost \$140,000 to \$150,000.

**Little Rock, Ark.**—Architect T. G. Rickon: Remodeling residence for Jacob Erb; cost \$3,000. For C. Ferguson, frame residence; cost \$4,000. Architect T. Harding: For J. Howell, frame residence; cost \$7,000.

**McKeesport, Pa.**—Thos. M. Verner has the contract for building the Second M. E. Church, to cost \$16,000. Sketches are being made for a projected McKeesport bank building, to cost \$50,000.

**Pittsburgh, Pa.**—Architect F. J. Osterling: For D. W. C. Bidwell, plans for three brick dwellings; contracts let. For Mrs. C. M. Hostetter, plans for four dwellings.

Architect J. T. Steen: For F. W. Folsom, of Sharpsburgh, three-story brick residence; modern improvements.

Architect T. C. McKee: For H. W. Fauke, Harmony, Butler county, fifteen-room stone and brick residence, to cost \$15,000. Under way, plans for a mansard addition to dwelling; also for a blast furnace.

Architect F. C. Sauer: For C. D. Schimmelfelder, four-story apartment building, 19 by 82 feet. For Seely Bros., three frame dwellings. For A. Maunus, two-story and basement brick dwelling, 24 by 54 feet. For Max Buchman, two-story brick dwelling, 24 by 60 feet.

Architect W. S. Fraser: For Mr. Lockhart, fifty three-story, stone front dwellings, with modern conveniences, to be erected on Dinwiddie street; contracts let.

**Seattle, W. T.**—Governor Squire is about to erect the finest business block in the West; it will be seven stories high and have one hundred and twenty-five offices, besides the store rooms on the ground floor; Architect Boone has charge of the building. A new and magnificent depot is to be erected here very soon.

**Siox Falls, Dak.**—Rice & Seely will erect a four-story brick hotel and store building. Frank Pettigrew is reported about ready to build a \$200,000 opera house. L. S. Cushing, who represents a Boston syndicate, that is to erect a \$60,000 building says work will soon begin on the structure. A. Beveridge and W. C. Hollister are to erect a four-story block, to cost \$20,000. Mr. Henry Renken has just received a contract for a \$26,000 building at this place.

**St. Paul, Minn.**—The architects generally have their hands full of work. Omeyer & Thori, during the past few weeks, have undertaken the following work: One residence on Charles street, near Mollin, \$3,000; residence, Charles street, near Jay, \$3,000; two-story brick, Sibley, near Fifth, \$2,000; eight residences, Merriam Park, \$30,000; residence on Case, near Westminster, \$3,500; two houses on Point Douglas street, \$8,000; four houses, Martin, near Kent, \$18,000; residence, St. Anthony avenue, near Kent, \$5,000; residence, East Third street, near Margaret street, \$5,000; two-story brick block, Cedar and Fifth, \$25,000; three-story brick block, East Seventh, \$50,000; residence, on Lawson street, \$5,000; three houses in Hamline, \$10,000; residence, St. Albans and Iglehart, \$5,000; four houses, Selby, beyond Dale, \$18,000; residence on Margaret street, \$5,000; residence on Dale and Fuller, \$5,000; double house, Grand, near Victoria, \$6,000; two-story store, East Seventh street, \$3,500. This is only some of the current new work of one firm. It does not look like a dull season in building or realty.

Architect C. A. Wallingford reports the following new work: For J. L. Mahan, a row of three-story stone houses; cost \$30,000. For J. C. Nelson, row of two-story brick houses; cost \$20,000. For E. H. Stahlman, three-story brick apartment house; cost \$15,000. For D. W. Brazil, brick residence; cost \$10,000. For L. Scott, double frame residence; cost \$6,000. For J. C. Harlow, frame residence; cost \$4,000. For St. Paul Park Presbyterian Society, frame church; cost \$4,000.

The following are among the prominent recent permits granted: Dr. A. J. Goodrich, residence, \$8,000; L. Eojin, residence, \$5,000; John Martin Lumber Company, office, \$5,000; J. M. Erickson, dwelling, \$3,500; A. Sletner, dwelling, \$5,000; Mrs. A. M. Rolean, three-story boarding house, \$5,000; W. W. Clark, dwelling, \$5,000; J. G. Rood, dwelling, \$6,000; E. P. Wilgus, six dwellings, \$30,000; P. Scholin, dwelling, \$5,000; L. Scott, dwelling, \$6,000; S. A. Terhune, dwelling, \$5,000; H. Rothschild, dwelling, \$5,000; St. Paul Realty and Investment Company, three two-story frame dwellings, \$15,000; C. A. Dun, two-story frame dwelling, \$5,000; J. P. Lohman & Co., two-story frame dwelling, \$5,000; S. Hagen, two-story frame dwelling, \$5,000; John Vogthi, three-story brick store and dwelling, \$14,000; E. L. Allard, two-story frame dwelling, \$5,000; J. Shannahann, two-story frame dwelling, \$5,000; J. L. Forepaugh, two and one-half story brick dwelling, \$24,000; J. W. Scott, two-story frame dwelling, \$5,000; A. H. Lohliker, two-story frame dwelling, \$5,000; C. St. P. M. & O. Co., alterations and repairs, three-story brick block, \$50,000; J. A. Eldridge, two-story frame dwelling, \$5,000; S. Stickney, two-story frame dwelling, \$5,000; Trustees of Bethany Congregational Society, frame church, \$5,000; Joseph Guretin, two-story frame dwelling, \$5,000; Dr. A. J. Goodrich, two-story frame dwelling, \$8,000; C. F. Kaiser, two-story frame dwelling and store, \$5,000; Mrs. E. Parker, two dwellings, \$10,000; Ed. Stohman, brick apartment house, \$15,000; Minerva L. Wilson, dwelling, \$5,000; Germania Bank, bank and office building, \$175,000; D. H. Tandy, brick store building, \$9,000; D. H. Tandy, dwelling, \$5,200; Board of Education, addition to school house, \$14,000; A. H. Lohliker, dwellings, \$6,000; L. J. Gates, dwellings, \$5,000; J. H. Nickel, dwellings, \$6,000; S. O. Johnson, dwellings, \$5,000; Dix & Stanley, dwelling, \$5,000; John E. Williams, two dwellings, \$10,000; S. Kingsley, dwelling, \$5,000; H. S. Ogden, block brick dwellings, \$18,000; O. Hendrickson, dwelling, \$5,000; C. E. Rittenhouse, dwelling, \$6,000; Board of Education, Manual Training School, \$45,000; Broadway Improvement Company, block of stores, \$30,000; E. Gadois, dwelling, \$5,000; Peter Stryker, seminary building, \$17,000; M. Batey, dwelling, \$5,000; Jos. Guertin, dwelling, \$5,000; G. P. Jacob, dwelling, \$6,000; E. W. Peet, dwelling, \$7,000; J. H. Butterfield, dwelling, \$5,000; Johannah Burke, block of dwellings, \$16,000; Annice E. Keller, block of dwellings, \$40,000; A. L. Mayall, dwelling, \$5,000; F. Bierner, dwelling, \$6,000.

**Tacoma, W. T.**—Architects Farrell & Darner are making plans for a Presbyterian church, to cost about \$40,000; also for a four-story store building, to cost \$50,000; also for a nine-room residence for A. T. Collier; also for a three-story building for P. Irving.

Architects Proctor & Dennis have made plans for a double frame dwelling for Dr. Misner, to cost \$5,000; also a two-story residence for Mr. Manning, to cost \$4,500; also twenty-one two-story stores for W. H. Fife, to cost \$20,000.

**West Superior, Wis.**—W. B. Chambers proposes to build a new theater in this city, to be three stories high, to be used for light operas.

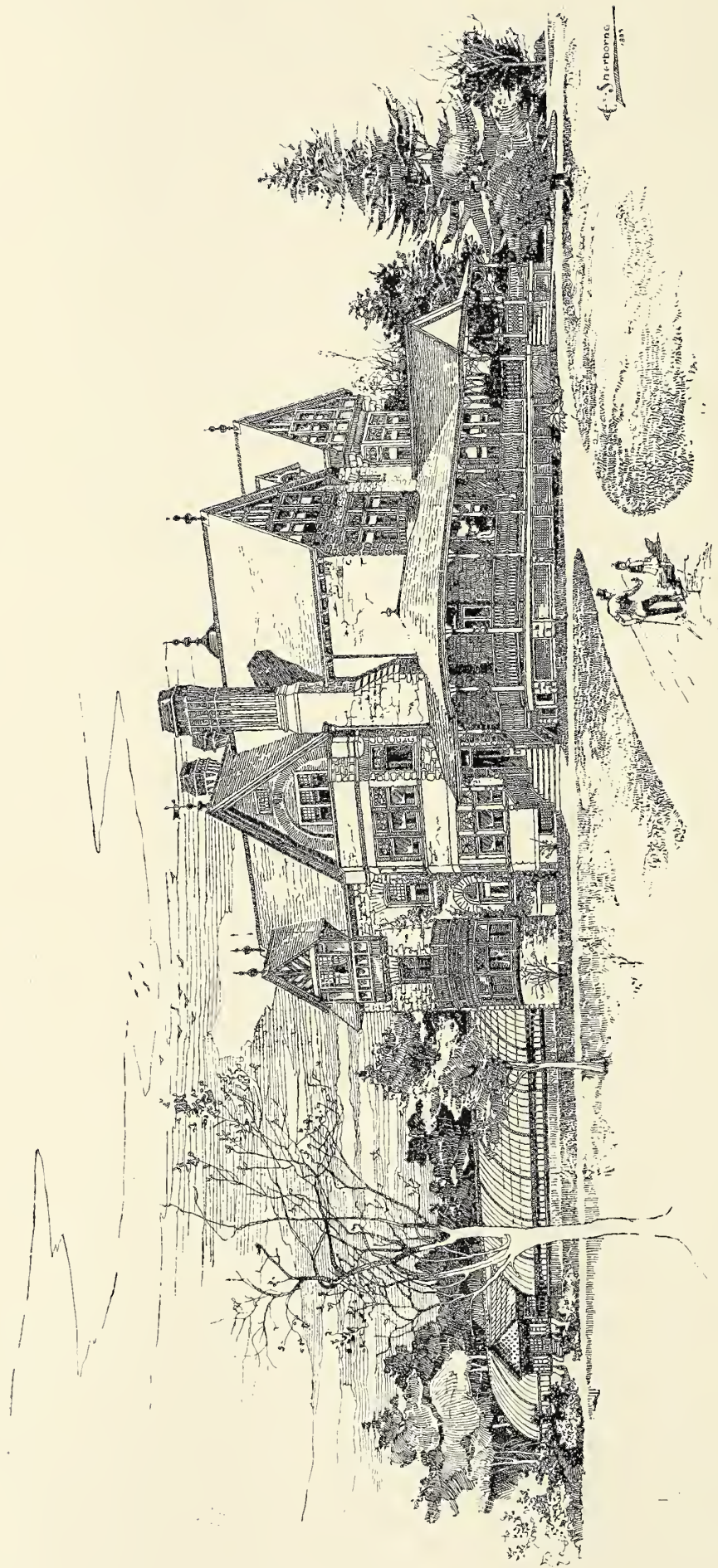
**Winona, Minn.**—Architect G. B. Ferry, of Milwaukee, has secured the contract for building the new hotel building here; it is to be five stories high, the lower story to be of Lake Superior brownstone, and the remaining four stories of red pressed brick, with stone trimmings; it is to have eighty-six rooms, fitted up in the modern style; cost, when completed, about \$100,000.

**Yankton, Dak.**—Plans are now being made for a \$30,000 hotel, to be erected here. A. B. Wilcox will build a \$5,000 residence. J. P. Crennan and J. T. M. Pierce will erect a large business block from plans made by Architect Sidney Smith, of Omaha, Neb.









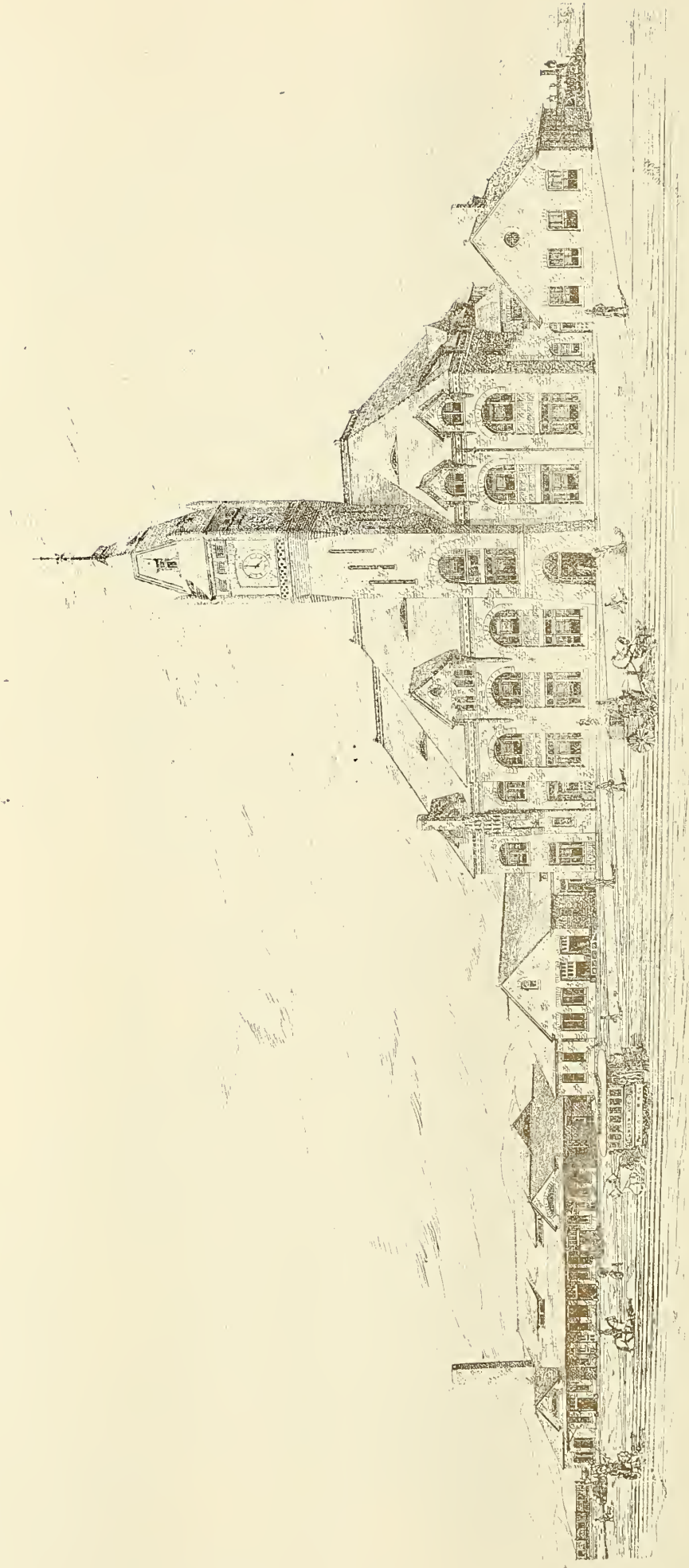
RESIDENCE FOR  
CHAS DISSEL, ESQ.  
AT WYNEWOOD, PA

ALBERT W. DILKS. ARCHTENT  
- 1101 - CHESTNUT - STREET - PHILA. PA. -





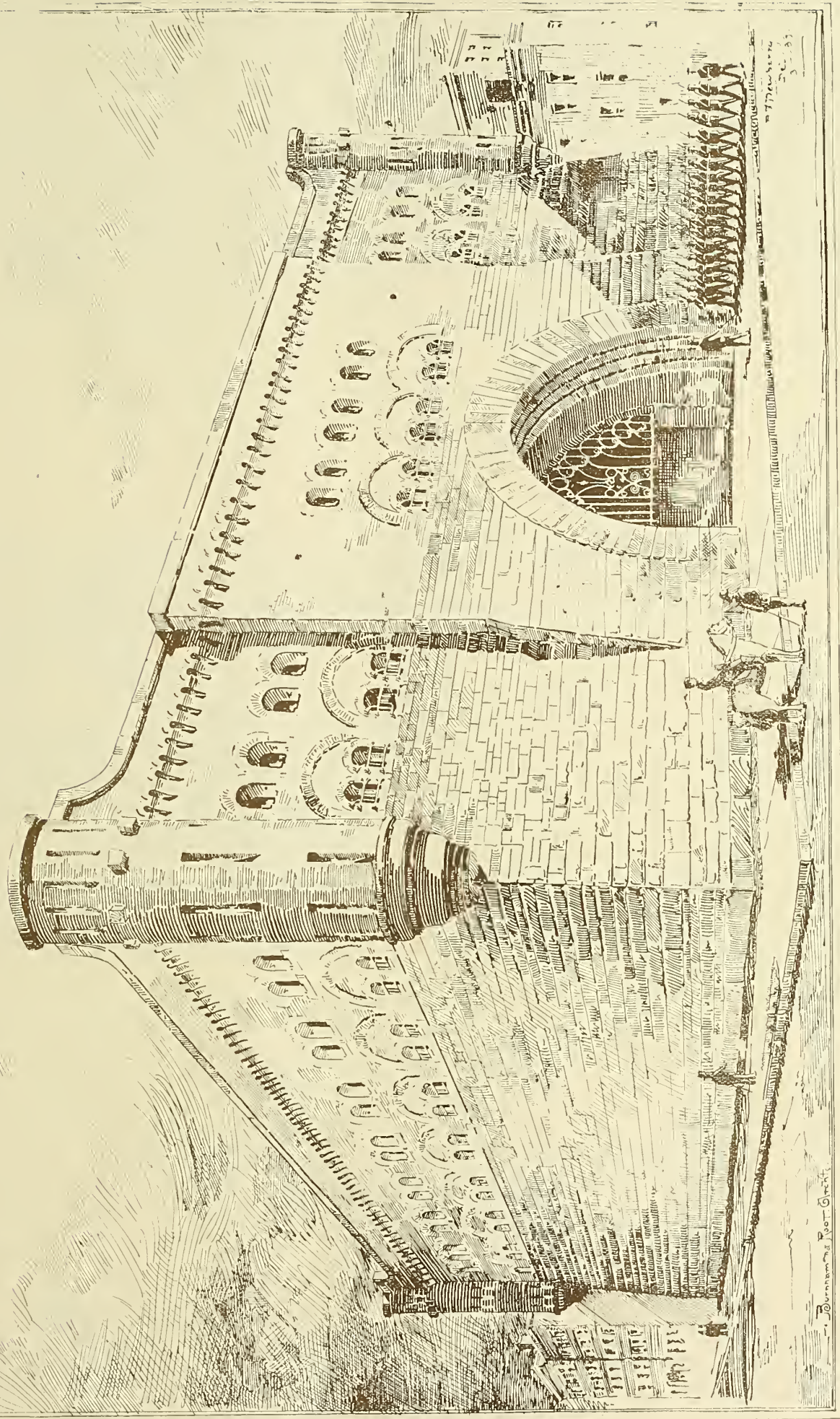




UNION DEPOT, PUEBLO, COLORADO.

SPRAGUE & NEWELL, ARCHITECTS, CHICAGO.





DESIGN FOR FIRST REGIMENT ARMORY, CHICAGO.

BURNHAM & ROOT, ARCHITECTS.





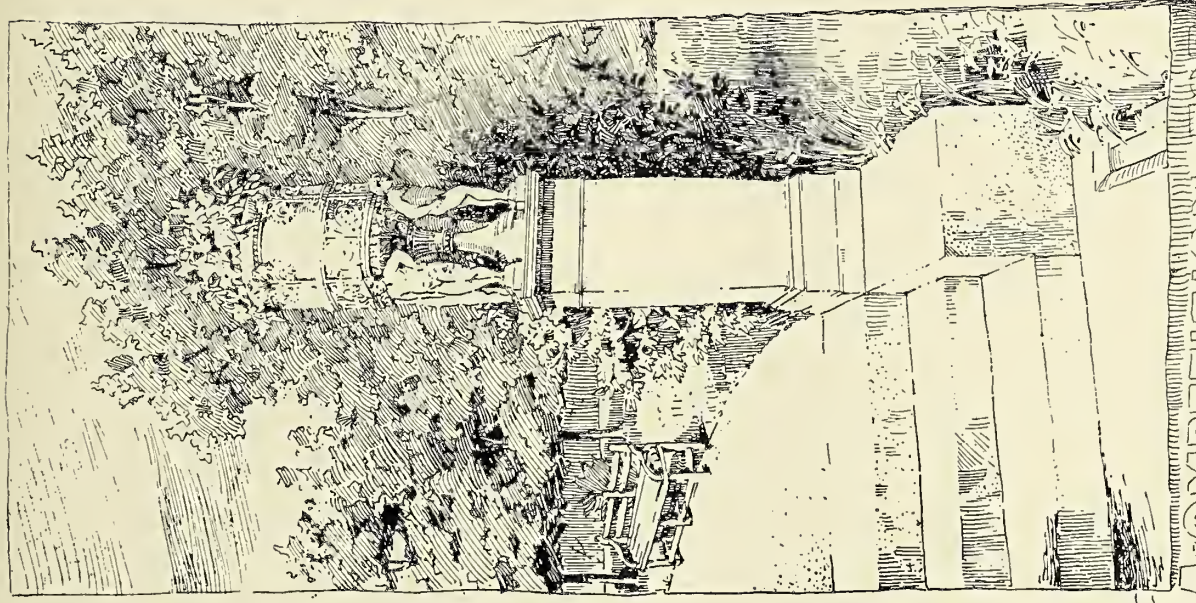




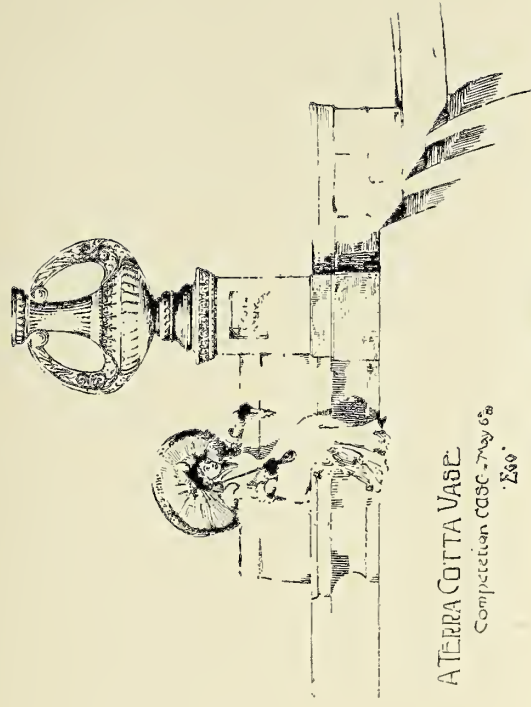
By C. B. SCHAEFER.



FIRST PLACE—A. HEUN.  
REDRAWN FROM WASHINGTON.

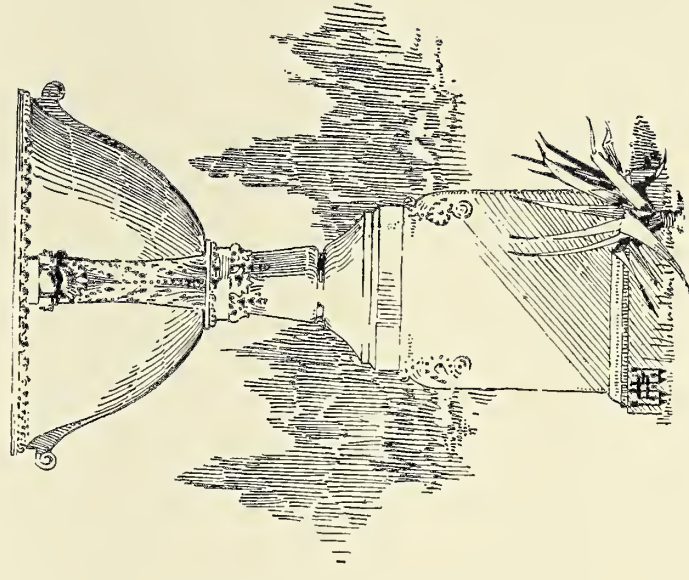


COMPETITION FOR  
 TERRACOTTA VASE  
 BY O.C. CHRISTIAN 2<sup>d</sup> PLACE



A TERRA COTTA VASE  
 Competition CGSC 27th May 08  
 '880'

By C. A. KESSELL.



THIRD PLACE—W. G. WILLIAMSON.









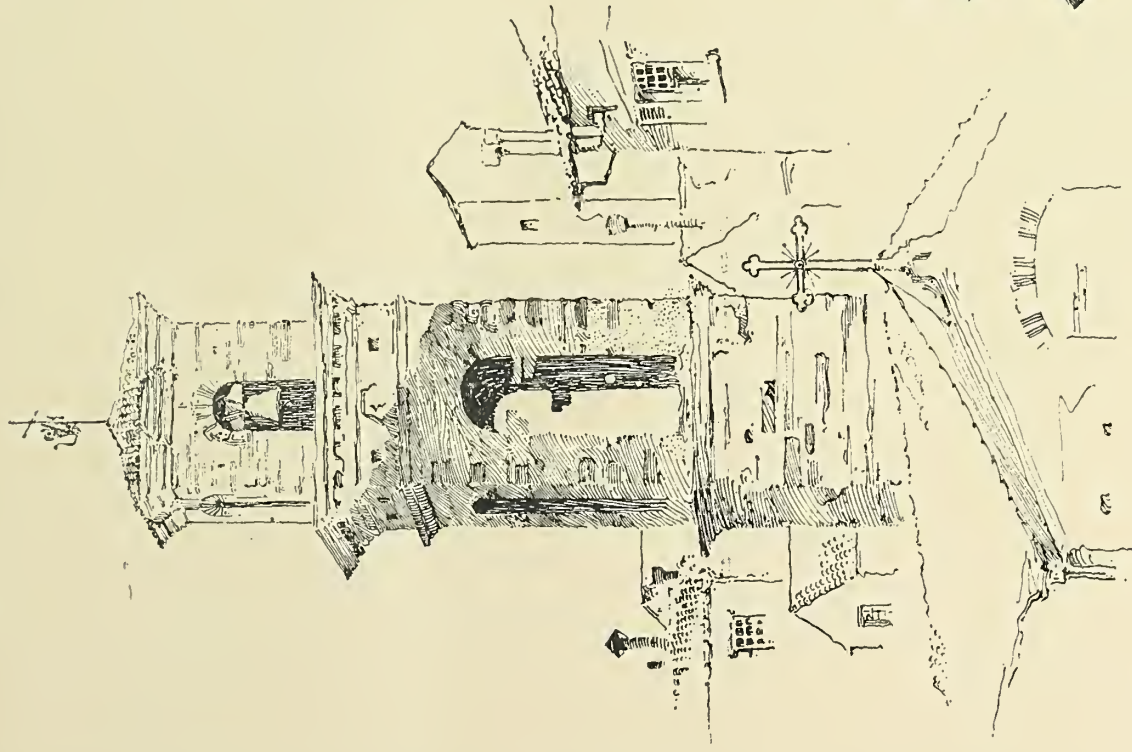




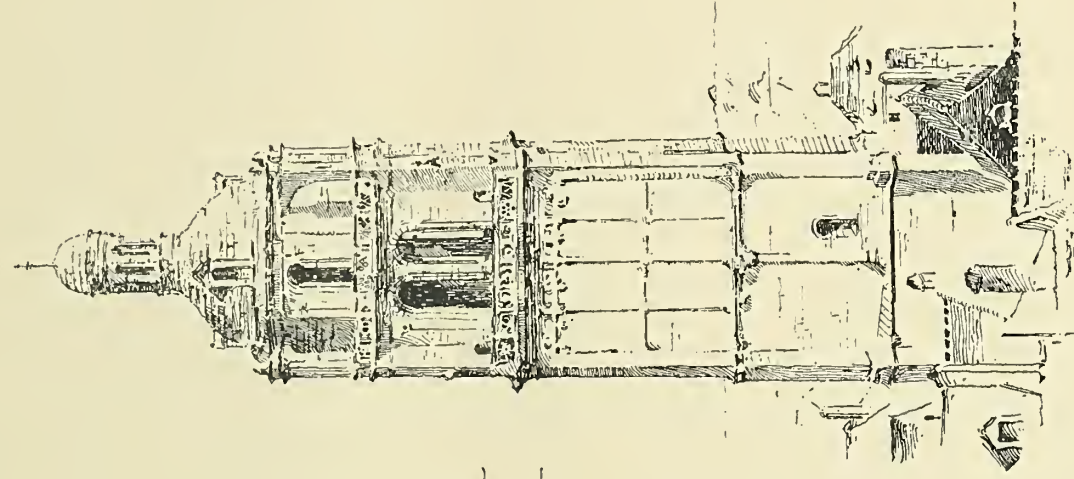
RESIDENCE OF G. W. MAHER, WOODLAWN PARK, ILL.

GEO. W. MAHER, ARCHITECT, CHICAGO.

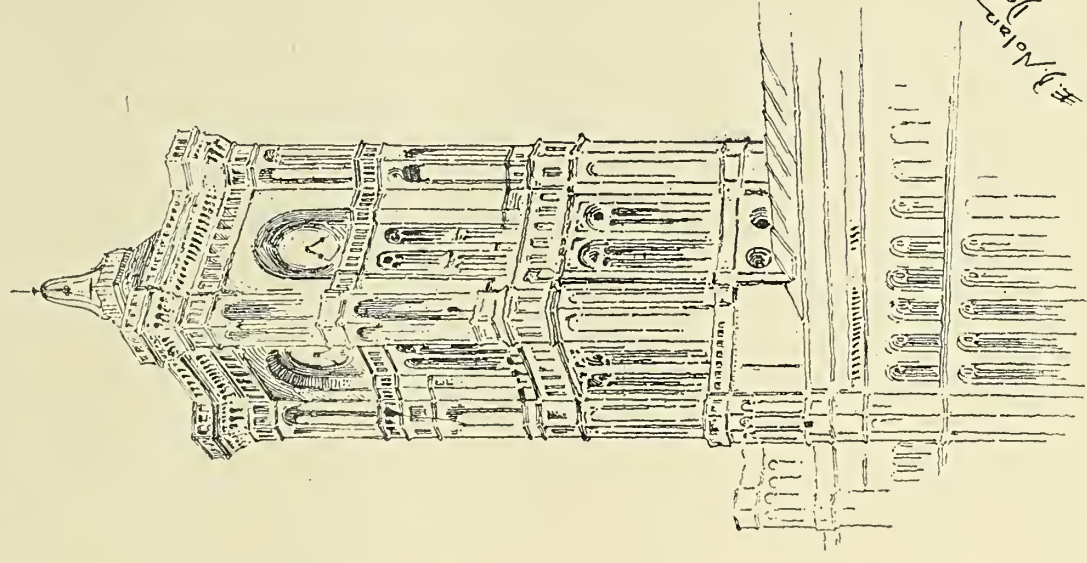




Venice. S. S. Apostoli.



Loches. St. Antoine.



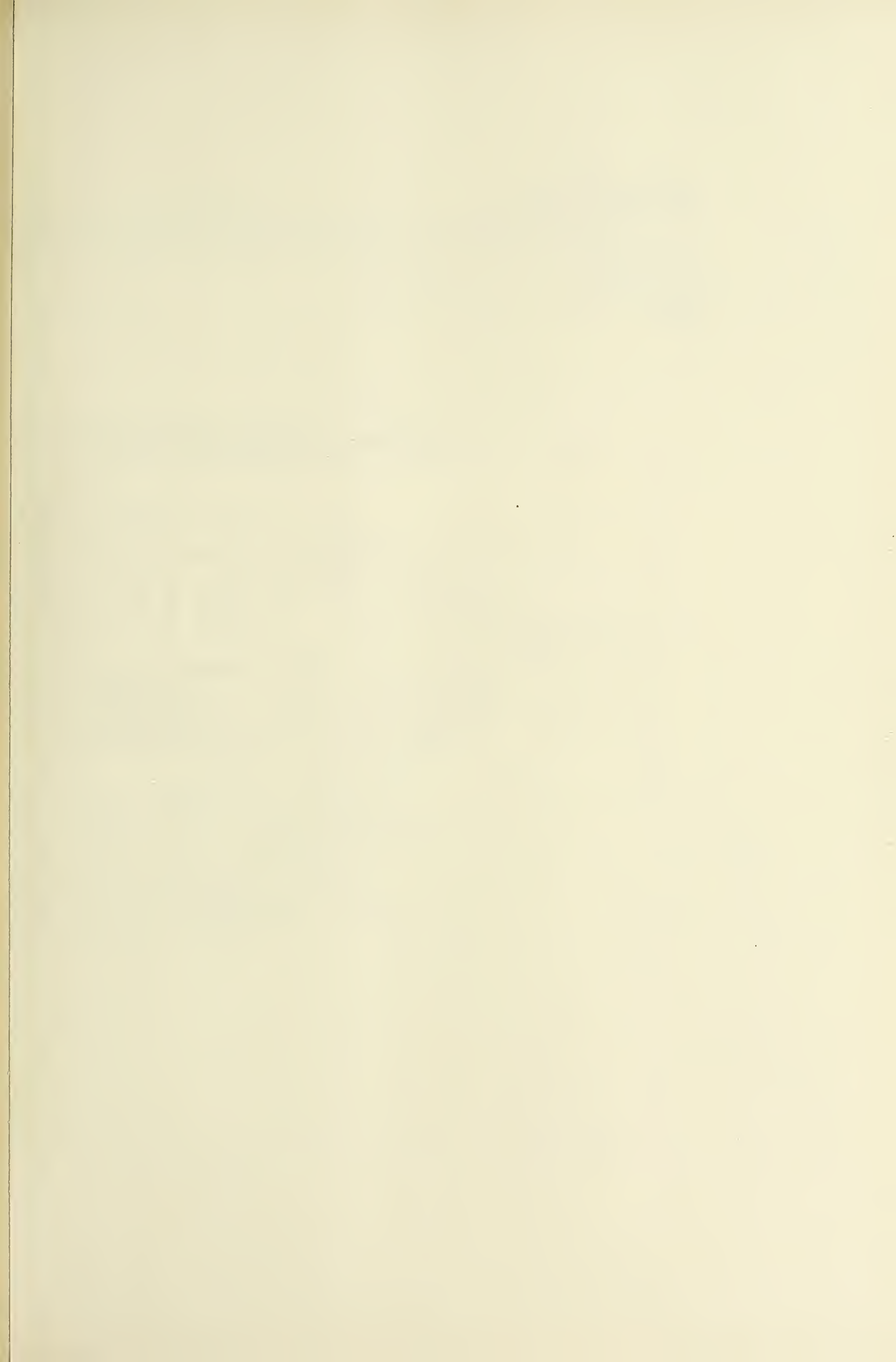
Berlin. Rathaus Thurm.

Not  
del



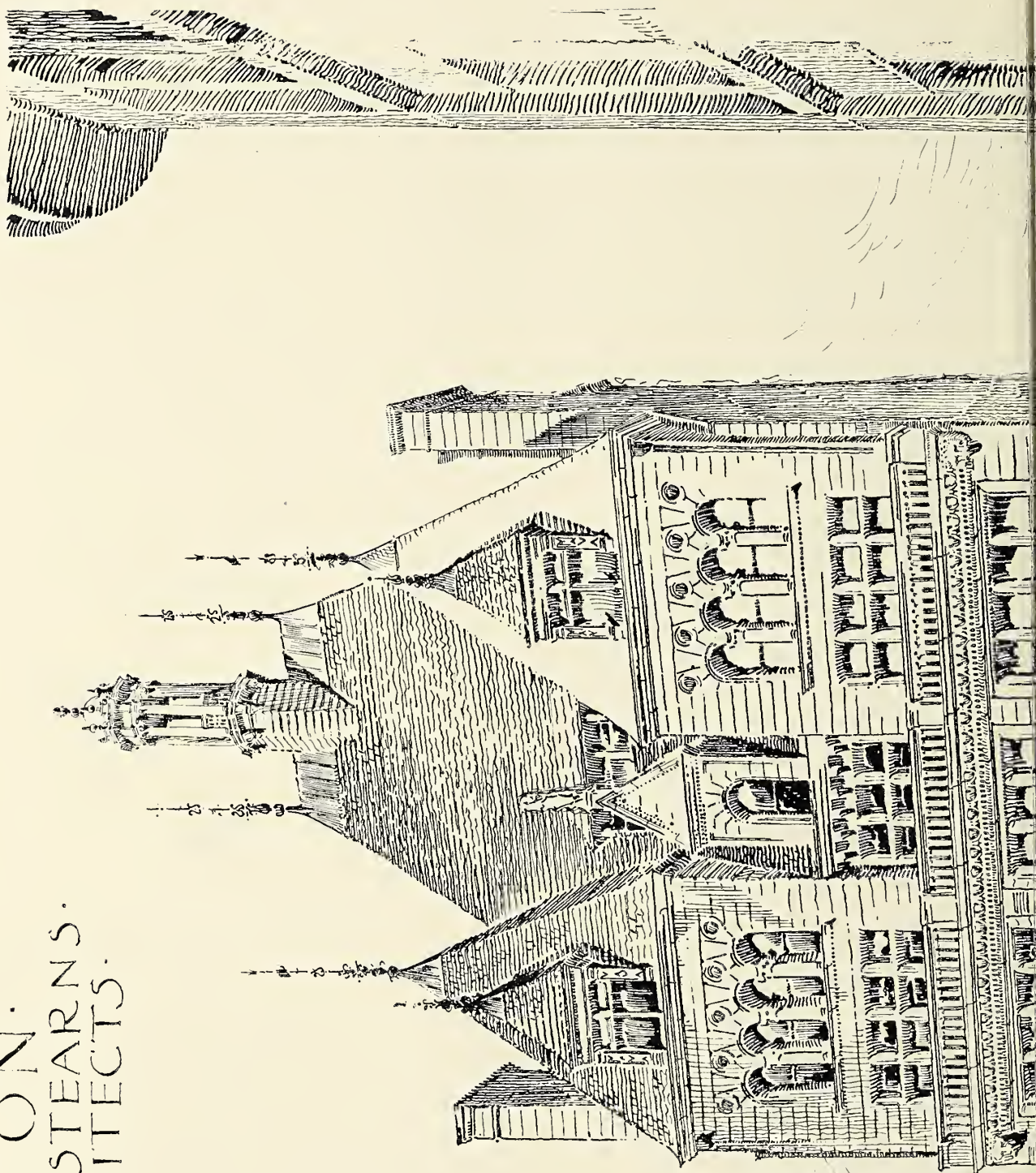




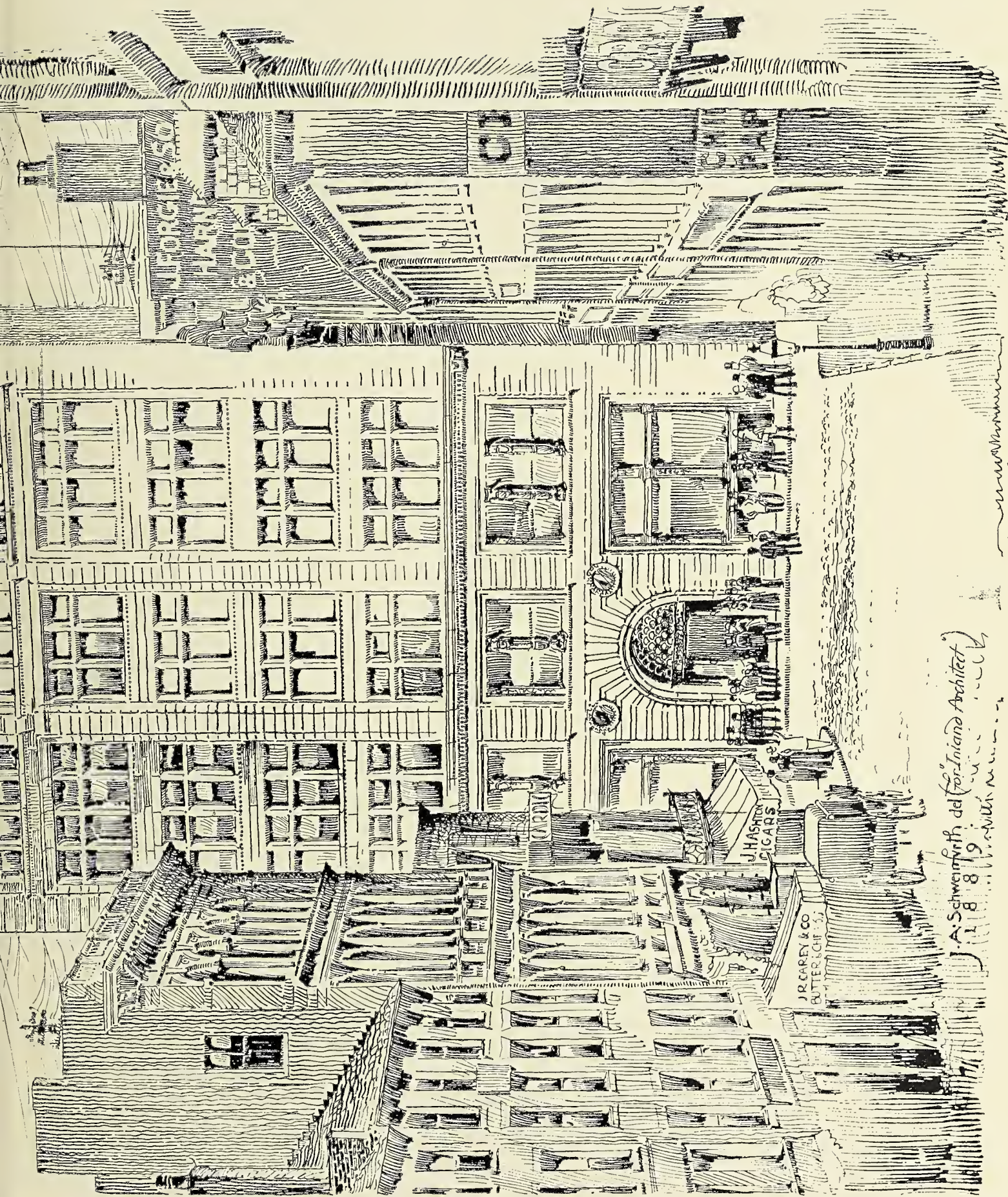




FISKE·BUILDING·  
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A. Schwab del. (for Inland Architect)

1889







JULY, 1889.

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Important  
Suit for  
Architects'  
Fees Decided.

That a suit for architects' fees, of which we give the details in another column, has been decided in favor of a fee of four per cent is no reason why the usual and reasonable fee of five per cent should not be insisted upon in the courts. Enough cases have been decided to establish the schedule of the architectural associations to more than counteract the effect of the case referred to. "Before the fire," as now, the established fee with architects of standing was adhered to, but the formation of the Western Association of Architects, in 1884, undoubtedly largely encouraged correct practices among architects, though there is today in the courts of Chicago a case where the architect of an important business block is suing for a fee of three per cent.

Applications  
of New Members  
to A. I. A.  
and W. A. A.

As it is now settled that the consolidation of the American Institute of Architects and the Western Association of Architects will take place next fall, there will be, without doubt, a number of architects who would like to join the new association at its beginning and take part in the joint convention. This can only be done by joining one or the other of the societies previous to consolidation. The attention of all architects not members of either association is called to this, as it might be overlooked until too late to have their names considered. Such applications ought to be handed in before August 1, in order that they may be considered by the directors and submitted to vote by the membership. The secretary of the Institute, Mr. A. J. Bloor, may be addressed at 18 Broadway, New York, and the secretary of the Western Association, N. S. Patton, at Montauk Block, Chicago.

Immense  
Sanitary  
Improvements  
at Naples.

What is probably the most extensive sanitary work ever undertaken has been inaugurated at Naples, Italy. This is the demolition of those quarters of the city which the cholera most completely infested in 1884. About three months ago, the Italian parliament passed a bill authorizing the improvement, and a month ago the work was begun with considerable ceremony, King Humbert and his son, the Prince of Naples, going from Rome to inaugurate it. The project involves the employment of nearly twelve hundred workmen, and the demolition of seventeen thousand houses and sixty-two churches in the most thickly settled and most squalid parts of the city, where the narrow streets, filled with perennial filth, breed pestilence and death. It is proposed to erect in their stead well-built houses, and to lay out fine, broad streets, that will let in the air and the sunshine to the inhabitants. Naples is the most thickly populated city in Europe, and the quarter to be thus renovated now contains a population of one hundred and eight thousand, or six hundred to the acre. It is proposed to reduce this population just one-half. All the people now residing in these slums have received notice to quit, and when the work has been completed the new buildings will probably have an entirely new set of occupants. A new street, a mile and a half long and 90 feet wide, twice the width of any existing street in Naples, is to be run through the district now temporarily depopulated. The cost of this immense improvement will be enormous, and is to be borne largely by the Italian government. The work to be done involves the destruction of one hundred and forty-four old



streets and the widening of one hundred and twenty-seven others, the total or partial destruction of fifty-six *fondaci* or slums and five hundred and twenty-seven isolated groups of houses. The payments which will have to be made to the owners of the houses to be torn down, for their appraised value will alone amount to £3,750,000. Add to this the cost of the work of demolition and of the new streets and squares to be laid out, and it will be seen that this is the most expensive piece of house-cleaning ever undertaken.

An English  
Comment  
Upon the  
N. A. B.

A recent number of the *Architect* of London, England, gives an extended summary of the proceedings of the last annual convention of the National Association of Builders, with comments upon the general subject of builders' conventions, and also the action of the convention in detail. The writer receives a wrong impression regarding the prime purpose of the association, intimating that the purpose is to obtain justice, which the state and national government does not accord, and says that "the builders of America, who are supposed to draw enormous profits out of public buildings, are not without their own grievances. In order to deliberate upon them it is customary to hold an annual conference or convention." This is peculiar, as he continues and copies from the constitution the objects of the association, which means neither more nor less than it says. Of course, the regulation of public building contracts is one object, but the main one lies in the general elevation and regulation of the builder and material dealer in his contracts for private work. It is interesting to observe the interest taken in American architectural and building practice in Europe, and the journal quoted from is, if anything, in advance of its contemporaries in giving to its readers such information regarding American practices as will aid them in their work. The article closes by saying that "from the preceding abstract it will be evident that the aims of the National Association of Builders in America are well inspired. It will be allowed that no higher standard of efficiency exists in Europe than is proposed. When it is remembered that hitherto a go-as-you-please rule was the only one that was followed the new departure becomes still more remarkable. The endeavor to attain greater efficiency and to put building constructions upon a level with other callings will have the best wishes of English architects and contractors."

The Clark and  
Phimister  
Medal  
Competitions.

Architectural draftsmen in the United States who are under the age of thirty years will be interested in reading, upon another page, the conditions under which they can compete for two notable medal prizes. The Robert Clark and D. G. Phimister medal competitions, under the direction of the Chicago Architectural Sketch Club, will present two subjects for the exercise of skill in designing, planning and rendering an apartment house and a town library, which will call into play in a large degree all that is practical and artistic in the draftsman. In regard to the generous donors of the competitive prizes little need be said, as the comment upon the man who "makes two blades of grass grow where one grew before" applies in the fullest degree to them. That the Chicago Architectural Sketch Club is fully deserving of the gifts placed in their hands for competition is felt by everyone who has remarked the rapid growth of this remarkable sketch club, and they have shown their breadth of character by throwing open these prizes which were

placed in their hands for competition among members, for competition by all the draftsmen in the country. The height of excellence which this club has attained has been mainly through the efforts of its members, but it is deserving of material outside recognition and assistance. This has been heretofore proffered by many architects who felt that they were benefited by the increased proficiency attained by draftsmen through membership in it, yet no way seemed open for the club to receive financial contributions. The club has lately instituted an associate membership grade mainly to admit draftsmen resident in other cities to its rolls, but which can be taken advantage of by architects and those who wish to aid in the work they are engaged in and would consider it an honor to belong to so superb an organization.

Master Painters  
of Illinois  
Convention  
at Springfield.

The announcement that the Master House Painters' and Decorators' Association of Illinois will be held at Springfield, July 17 and 18, should call out a full attendance of members. The province of the master painter was formerly to give the exterior of the building two coats of color, and his honesty was largely gauged by the quality of lead used, but today he is a finisher in oils and varnishes as well, and is largely a decorator. His work is not, as formerly, passed upon by the owner or the carpenter, but by the architect, upon whose certificate he depends for payment. The master painter of today must be not only informed upon every detail of his trade, but upon the quality and values of all kinds of oils and varnishes as applied to different varieties of work; he must not only be conversant with local methods, but of those in vogue elsewhere. In fact, his success largely depends upon his accumulated knowledge and his readiness to adopt the constantly changing methods and requirements of his trade. The painters of Illinois have this year, for the first time in a decade, avoided trouble with their employes, and this alone should urge their attendance upon this annual convention, which should be a gathering for mutual instruction and congratulation.

Australian  
Architecture  
vs. that of the  
United States.

Australia is making rapid advancement in architecture as in all other arts, the architects being called upon for better designs, which are looked upon more critically by the public than formerly. "While art proper," as a prominent Melbourne architect writes, "is yet in the infancy of its existence, we are striving to build up great cities in this continent, and in our architecture we emulate the best examples of the Old and New Worlds. We have no traditions and no history (at least in this state) older than eighty years, and are, untrammelled by precedent or 'ancient' example, essentially local. Though eclecticism prevails, and the result is not always pleasing, perhaps after we have struggled through the inevitable transition state we may produce a style purely climatic or Australian. Our clear, hot atmosphere, and the brazen skies of summer, and the sharp, cold, but always bright winters demand a treatment that must, if we are consistent, be local in style." It is pleasant to contemplate that our Australian friends are much in the position of their confreres in the United States, who also have "no traditions" and "a climate that demands treatment essentially local in style." There is a chance for emulation in this, and we should like to see an Australian architectural journal published which would give us an adequate conception of the problems worked out by architects of that country.



## Romanesque Architecture.\*

### CHAPTER X.

CENTRAL SYRIA—CHURCH OF TOURMANIN. • PALESTINE—THE TEMPLE OF JERUSALEM—THE DOUBLE GATE.

THE church of Tourmanin (Central Syria) resembles at the same time the church of Baqouza and that of Qalb-Louzeh. The nave and the choir belong to the first of these two churches, the naithex to the second. Its total length is 40 meters, and its width 15. The interior of the nave resembles that of Baqouza, and small columns of an order like those in Qalb-Louzeh support the beams of the open timber roof.

The church is placed on a sub-basement, which gives it a large base. The façade is of an imposing character, but with such an arrangement of lines as to give a picturesque effect. Like that of Qalb-Louzeh it is composed of a wide arcade surmounted by a terrace and flanked by two square towers; but these towers are more isolated and the terrace is covered by a loggia ingenious and elegant in its arrangement.

A wiser or more logical arrangement can scarcely be imagined than this, a composition where each element has its function sharply defined, where the equilibrium results from the stability of the material laid without mortar, and where the decoration is only a consequence of the construction. The effect produced is very striking.

The apse also has an imposing character. Ornamented with two orders of columns one above the other, as at Baqouza and Qalb-Louzeh, it is remarkable for the harmony and vigor of its lines. It is in the form of the half of a regular dodecagon, the angles of which are ornamented with small columns.

The bases have a profile which indicates the sixth century, and the carvings of the capitals of the apse, in low relief, sharply cut, appear to be of the same time.

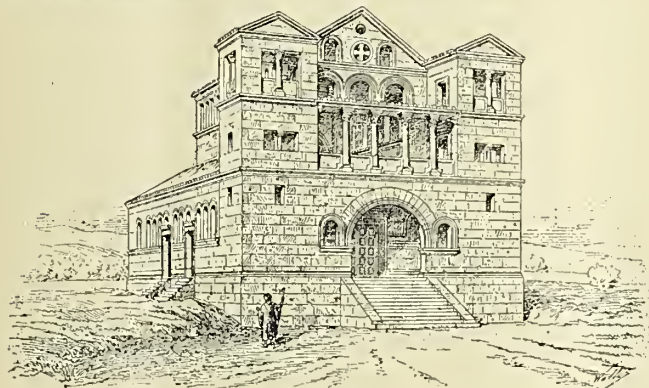


FIG. 51.

The same as in Qalb-Louzeh the naithex which precedes the principal door has a grand effect, and the wide arcade which gives access to it between the two towers is vigorous in character.

This arrangement is very original, and it is easy to recognize in it the general arrangement of the façades of the West in the middle ages. The features of resemblance which unite the churches of Central Syria with those of the western world are most apparent in the apse.

Externally this apse is decorated like that of Qalb-Louzeh, with two orders of columns, one directly above the other; the idea was antique, although the application of it was quite new. The architect, endowed with practical good sense, has left out, judging them useless, the cornice, frieze and architrave, that a Roman constructor would not have failed to introduce into his composition. Nevertheless, the column has remained antique in its proportions and in the harmony of the two orders. But let time and reflection make away with these last scruples, let the capital and useless intermediary base disappear to be replaced by a simple molding, let the long columns thus obtained be placed closer to each other, let the brackets of the cornice be grouped nearer together, leaving open spaces between, and the Romanesque apse of France and the borders of the Rhine appear and the relationship is clearly established.

The Temple of Jerusalem, celebrated for more than one reason, is particularly interesting here as an example of a cupola, with the block set normal to the bed, very rare in the sixth century.

In this epoch were constructed in Central Syria, as well as in Palestine, edifices with cupolas, and we gave a curious specimen of this kind of construction in the baptistery of St. George of Ezra, in

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

Fig 39. But these monuments were erected in imitation of the Persian, not only in the general shape, but also in the details of construction. This method consisted of building in rough masonry of

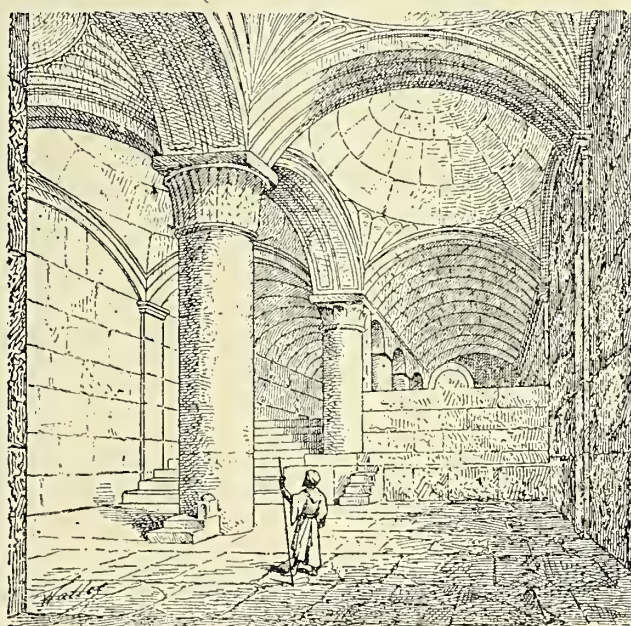


FIG. 52.

brick or rubble, cemented or covered by an excellent mortar, and by rudimentary processes, arches and cupolas, not built on wooden or brick centers, according to carefully developed plans, but upon forms made of earth or sand roughly constructed on the "cut and try" plan.

The cupola of the double gate of the Temple of Jerusalem marks so plainly the gradual progress that it is useful to note it. It was built about the time that St. Sophia was, following the Syrian method, leaving to the stone its natural surface in the dressing and construction, without the addition of decorative material.

The entrance is composed of two bays which open into a grand vestibule, the vaults of which rest on heavy central columns. From this vestibule lead two flights of stairs separated by a row of piers, which lead to a higher platform. The double gate was reconstructed about the sixth century. The old walls have been swallowed up, four ribbed arches have been banded on the central column, and the four compartments have been covered by means of four cutstone cupolas, resting on four spherical pendentives.

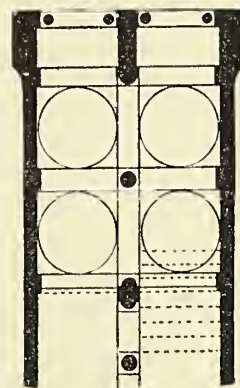


FIG. 53.

### CHAPTER XI.

#### MOSQUE OF CORDOVA.

The Mosque of Cordova, commenced toward the end of the eighth century, has more than one point of resemblance to the monuments erected in Rome and Syria at just about the same time. To better judge the plan and arrangement of the Mosque of Cordova, we must remember that when Spain, after the Moorish Conquest began to enjoy a regular and protective government there hastened to this city from Syria and Egypt numerous and powerful partisans of that ancient family of the Omniades. "The connections multiplying between the East and the West is a natural enough explanation for the taste for architecture, which was probably introduced then at Cordova, and of which parts of the great mosque of Abderame presents an extremely interesting example.

This monument borrowing from the Roman ruins, marbles, columns, and some ornaments followed the general arrangement already adopted and became the type of the architecture of the temples of Islam.

The plan of the Mosque of Cordova seems to have been borrowed from the Christian monuments of the earliest times of the middle ages. The plan of a Latin basilica can be found here, with its atium, its sanctuary or apse and its principal nave, to which the Arabian builders have added on the left and right those parallel galleries or side aisles which constitute the chief change they made in this kind of a building to alter it to suit their needs.



The original mosque comprised eleven great naves, running north and south; these naves opened directly on to the court which preceded the temple and was a necessary part of it. Thirty-three

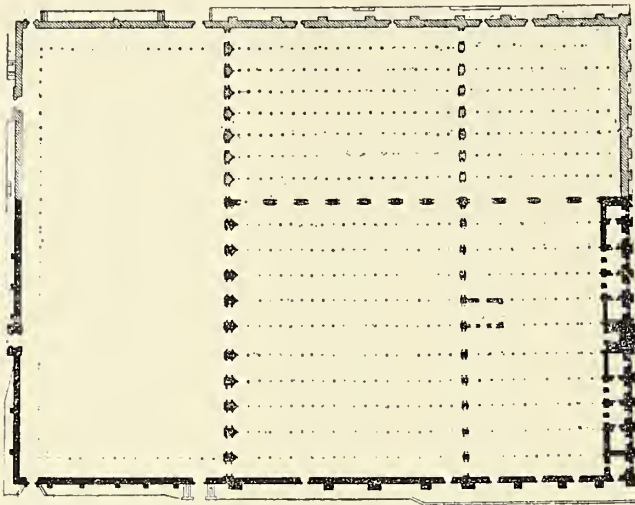


FIG. 61.

smaller naves, running east and west, pass through the eleven larger ones at right angles, thus forming a vast quincunx of columns.

Its actual plan is rectangular in front, about 162 meters long, from north to south, by 123 meters, from east to west. At the north a great court surrounded by a portico, backed by high walls, preceded the entrance of the mosque. This was divided into nineteen parallel naves, being about 100 meters in length, opening on to the court of the mosque, and communicating with it by great doors, some of which still exist.

The principal nave, which, from the north to the south, is 7 meters wide, and the eighteen other naves or side aisles are subdivided by thirty-five much narrower galleries, running from east to west, crossing the naves at right angles. This immense quincunx covers a surface of nearly 20,000 square meters.

The construction is very simple and at the same time carefully studied. The galleries are about 6 meters in width, excepting the principal one, which is 7 meters wide, and 9 meters high. They are formed by a straight line of columns, 3 meters high, bound together by a horseshoe arch, composed of voussoirs, alternating in white stone and red brick. The capitals of these are generally of the Corinthian or composite order, or imitations by the Arabians. The first arches are surmounted by other arches, springing from pilasters which surmount the skew-backs placed on each column. The builders avoided thus the girders of wood, which constituted so often the solidity of the Arabian arcades.

These two stories of arches produced by their repetition, added to the alternation of bright colors in the voussoirs, a very imposing effect, notwithstanding the simplicity of material employed by the architects. The timber roofs are open, and recall by their form the arrangement of the roof of the Latin basilicas.

The decoration is equally simple. It draws its principal effect even from the materials of construction, and particularly from the extraordinary richness of the columns. The variety of these is astonishing, in the material as well as in the work which ornaments them. The greater part of the shafts are antique, carried away from other parts of Spain, Gaul and Roman Africa.

At the left of the seventh nave (counting from the bottom of the right of the plan) is a little chapel, and at the back of the chief nave arises the kiblâh, in eight sides, crowned by a cupola hollowed out of a single block of marble.

These two sanctuaries are of the tenth century, but their details and their ornamentations are certain proof of the Roman and Oriental influences which have given to the whole of the vast edifice its principal character.

#### CHAPTER XII.

##### BYZANTINE ART.

If the founding of a new empire at Byzantium by Constantine in 330 of the Christian era is one of the great events in the history of the world, it marks, at the same time in the history of architecture a new art, or more exactly the departure of an evolution in antique art modified by Oriental influence.

Byzantine art did not rise spontaneously with the transplanting of the seat of empire from Rome to Byzantium, for Roman traditions

continued for a long time; and in the sixth century they were visible in the details as well as the plans of the edifices constructed by Justinian. Besides, Constantine especially wanted to imitate Rome, and the buildings which he erected in such numbers in his new capital were Roman. Since the fall of the Latin empire, Byzantium had valiantly resisted the barbarians, and, moreover, the fifth century, which witnessed all these struggles, was not favorable to the development of the art in the new empire of the East. "The period which extends from Constantine to Justinian was an age of formation for Byzantine art.

But by the beginning of the sixth century Byzantine art began to free itself from Latin traditions. It marks the rise of an original development, which is manifested by a bold style of architecture, and bears witness to the skill and ability of the Byzantine architects.

The dominant characteristic of Byzantine architecture lies in the use of the cupola as an architectural part, with all the consequences resulting from this mode of construction.

The cupola was not a new form. The Romans had known of it for a long time, as they had before their eyes the round temple of the Pantheon and the Calidarium of the Baths of Caracalla, models of a style of architecture as admirable for the wise combination of its structure as for the magnificence of its decoration. The old Romans and the new Byzantines both saw, in their connection with the people of the Orient and Persia, then in all the splendor of their prosperity and civilization, the Asiatic cupola on pendentives, but until then it was not applied to small buildings like chapels and baptisteries.

However, some attempts had been made on the largest scale, and the cupola of St. George of Ezra, in Central Syria, is one of the most interesting examples of this kind of construction. The cupola of Ezra, built in the first years of the sixth century, is about ten meters in diameter. It is worthy of notice that the plan of St. George of Ezra, being octagonal, it was more easy to pass from the octagonal to the circular cupola, than to build it on the square plan supported by pendentives. The example of it is none the less most instructive.

But, when the cupola became itself the principle of construction the difficulties increased, because of the enlarged dimensions of the edifice. One of the difficulties was to reconcile the new architecture with the rectangular forms necessitated by the service of Christian worship. They commenced by suppressing, in the buildings built with cupolas, the colonnades of the Latin basilicas or ancient edifices of Pagan or Christian worship. They replaced them by massive piers from which they sprang great arches, the vast openings of which are the four sides of the cross, of which the cupola is the center. In these great arches, forming the skeleton of the building, the colonnades are no longer anything but subdivisions. They only seem to sustain the arcades of the upper stories, or to separate the secondary galleries.

The cupola rests thus directly on the summit of four arches built on a square plan. They are bound together by spherical pendentives, the joints of the stone being cut nominally to the curve, and resting the weight of the hemisphere cupola on the four pillars. In this way they pass from the square plan at the opening of the arch to the circular plan at the keystones.

(To be continued.)

#### New York Sketches—The Old Work.

BY C. H. BLACKALL.

NEW YORKERS are sometimes disposed to boast of their Knickerbocker descent, and to speak with pride of the old families bearing names which have adorned the annals of New Amsterdam; from which a stranger might easily be led to suppose that the city abounded in souvenirs of the past, and that where the old ideas are so cherished, there must be a great deal of the old life remaining, in the architecture, if in nothing else. Possibly ancestral pride is in inverse ratio to the tangible reminders of past generations. At any rate, it is quite true that there is hardly a city in the country dating from before the Revolution, whose visible associations with the past have been so rudely handled by time and so effectually obliterated by man, as this old Knickerbocker city of New York; and in proportion to its size, there is, perhaps, no city from which the work of the colonial period has so entirely disappeared. Manhattan Island seems like a broad beach over whose surface each wave of progress seems to necessarily blot out all the work which went before. The really genuine pieces of work of the last century and the first fifteen years of the present, can be counted upon one's fingers. Indeed, few New Yorkers know of anything in the line of early work except St. Paul's and the city hall, and in considering the architecture of the city the older buildings seem like isolated examples, having no connection, historically or



otherwise, with the buildings which are now most typical of the city. The intermediate links in the historical sequence are entirely lost. The reasons for such conditions are quite natural, and are mostly geographical. The city is built upon an island nearly fourteen miles long, but averaging hardly two miles in width, so that as the demand for business accommodation has increased, there being room for expansion in but one direction, the purely commercial districts have grown at the expense of the residence quarter, pushing it back quite five miles in as many decades, and effectually obliterating most of the old landmarks. Besides, a New Yorker is much more thorough in his changes than some of his cousins. A Bostonian is content to alter floors and partitions, but in the metropolis everything has to move, and the very rock is even blasted away for new foundations.

The term old work, as applied to New York buildings, must then be taken with considerable allowance, as everything not manifestly modern, or antedating the cast-iron store front period, is commonly included under such a head. It will be sufficient, however, to consider in detail only the few which are at least in the Colonial style, if not Colonial by date; and first of all is the city hall, one of the purest pieces of architecture in this country, and one which has held its own through all the changes of fashion, from the days when the frugal-minded founders planted it out in the fields, building the rear of brown-stone, as never likely to be noticed, to the present day, when the best designers are studying its sharp-cut moldings and well-balanced proportions, and trying to do as well in the modern work. It is the one bit of old life left in the lower city; and a sharper contrast could hardly be imagined than is afforded by its pure white marble mass, simple in outline, unambitious in scale, surrounded by such overpowering, thoroughly recent structures as the Tribune Building, the Times, the Potter Building and Mullett's postoffice, with the rush and roar of Broadway on one side and the eternal din and confusion of the elevated on the other. It reminds one of a lily growing in one corner of an iron foundry. Perhaps, were it anywhere else, it would not seem quite so admirable. Its warmest advocates never grow enthusiastic; the goddess of liberty which straddles the cupola and clutches the flag-pole, and the scale is really a trifle small; still, it is one of those creations for which everyone feels a sympathy; which impress a certain something that the French vaguely term *style*; which is neither mass, proportion nor detail, but a harmonious coherence that makes one profoundly grateful that all municipal architectural attempts are not failures. Would there were more of the same stuff in New York!

Then there is the custom house, on Wall street, whose claim to antiquity consists more in its triple Ionic colonnade than in the date of its erection, though as far back as the forties it was called one of the two handsomest buildings in America. The building is so close to the sidewalk, and Wall street is so narrow that it is hard to obtain a good view of the front; and the effect of the broad flights of steps leading up between the nobly proportioned columns of Quincy granite, 38 feet high, in single blocks, crowned by a simple Greek attic and cornice, is little appreciated by the crowds who pass it every day. There is only one colonnade in the country, that of the treasury building at Washington, which could be more impressive than this, if rightly placed. We might not want to repeat such a design, any more than we would wish to reproduce the Hypostyle Hall of Karnak, but it is none the less impressive. The rotunda in the interior of the custom house is as successful as the exterior, while being more available for direct inspiration, and the decoration of the dome is an excellent example of color work, which was perhaps originally crude, but has been toned by time and dust to delicate shades which are as intangible as they are delightful. The surface is divided into twenty-four spaces by plain ribs, rectangular in section, the spaces being filled by a square panel at the bottom and a long panel diminishing toward the top. The ribs are a warm but faint buff. The ground of the panels, a delicate blue, with tones of dull red employed, sparing for a little stenciled ornament, and the egg and dart panel moldings are picked out in gold. The walls below are all in buff; the columns and cornice are of a warm-toned marble, slightly veined, and gold is employed to bring out the capitals and on the wall. As it stands, it is a very successful piece of decoration.

The sub-treasury building, on Wall street, opposite the head of Broad, is even more modern than the custom house by date of construction, though it is quite ancient in spirit. The effect of the massive Greek Doric colonnade and entablature of white marble is hardly enhanced by the bronze Washington, in full colonial dress, rising on a pedestal above the steep steps which form a base course across the front. It is doubtful if the first president would seem any more in place if he were attired in toga and sandals, for it is one of those inconsistencies which we easily become accustomed to in this

country. Certainly, the building would now seem incomplete without the statue. We also grow accustomed to the contrast between the heavy, stately exterior and the light, almost playful treatment of the interior—a low rotunda, encircled by a gallery with a curious old wrought-iron railing, and crowned by a dome with white ribs and blue panels, picked out in gold about the moldings—not as well toned as it may be ten years hence, if undisturbed, and much less knowing than the custom-house interior, though interesting by contrast and worthy of study.

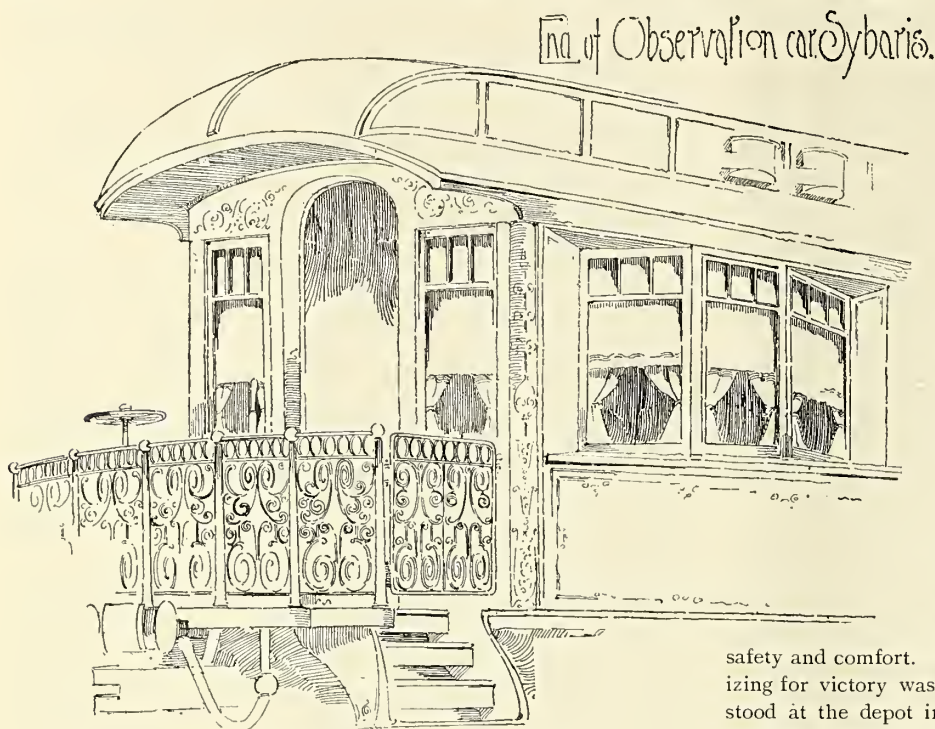
This completes the list of the early public buildings. Of commercial work there remains nothing to serve even as a remote prototype of the recent growths, for what cannot be classed as modern is too bad to notice. Of churches there are two examples, both excellent in their ways, and both offsprings of old Trinity corporation. St. Paul's—*dear* old St. Paul's to most New Yorkers—is the oldest church building in the city and the third structure erected for the Episcopal worship, having been begun in 1764, so that there is not the slightest doubt about this being Colonial. The interior, with its high, boxed pews and its imposing pulpit, is interesting more for its associations than for its architecture. The tower and spire, facing west and away from Broadway, are excellently designed, a pretty close copy of Sir Christopher Wren, but none the less pleasing; and the end toward the street, presenting a low gable or pediment supported by detached, attenuated columns and inclosing a typical Colonial window, though bad in every part as to detail, is too picturesque to be criticised severely, aiding to complete another of the sharp contrasts which abound in New York—the sky-rockety Western Union Building, the Herald Building, the Astor House, Broadway and the elevated forming a circuit around the sober, quaint little church, with its odd architectural features, and its peaceful churchyard full of moldering headstones.

The other revolutionary church is St. John's, on the West Side, near Varick street. The semicircular apsis and the tower form a group, as seen from the elevated, which is quite as interesting as St. Paul's, though the church loses on closer acquaintance.

There is a section of the city which seems to have been overlooked in the whirl of modern progress—an eddy, as it were, to the east of Chatham square, where many of the old dwellings of the humbler class still exist, and where those who know how to seek them can find an occasional doorway with carved imposts, bits of antique, leaded toplight and door panels, or some interesting pieces of wrought-iron fence posts and railings. Market street and East Broadway are thickly dotted in certain parts, with such reminders of the past. The neighborhood is not a pleasant one, abounding more in filth and rags than in architecture, but the bits show what it might have been at one time. There are a few fine old doorways on Market street, beautiful in spite of dirt and decay. It is rather curious that in the transformation of the houses from residences to tenements, the doorways should have been last disturbed. Often an entrance, with carved Ionic columns, leaded transoms and wrought-iron stoop railings will remain when every other feature has been changed. Bleeker street, further north, has also some old doorways, and is particularly rich in old iron-work, though the surroundings are hardly less disreputable.

New York City has not yet entirely covered Manhattan Island, and there are, consequently, a few old country seats way to the north, along the Hudson, which remain in much their original condition, at least as far as the buildings are concerned. Of such is the Morris house, near 161st street and Tenth avenue, a sketch of which is published in this issue, together with a detail of the entrance portal. The house was built by Colonel Roger Morris, and is a very good example of Colonial work. A better example, however, is the Apthorpe house, corner of Ninetieth street and Eighth avenue, which is also illustrated—better, at least, in the details, which are well chosen and very finely worked out. The proportions are good, and when in better repair, with carefully kept grounds about it, and a broad driveway leading to the recessed entrance, the general effect would be good enough to make one forget the cavernous look about the center, and the stone blocking marked out in wood. Then there is a comfortable old house at the corner of 141st street and Convent avenue, once the home of Alexander Hamilton, not as pretentious as the Morris house, but pleasanter and more home-like. The Lawrence house, 129th street and the Boulevard, erected in 1805, is another of these last remains of the Revolutionary period. There are few of them at the most and New York is just now inclined to deal with them tenderly and reverently, while yet the speculative builder is in the distance, and while the West Side boom has not yet quite obliterated the last tokens of our ancestors.



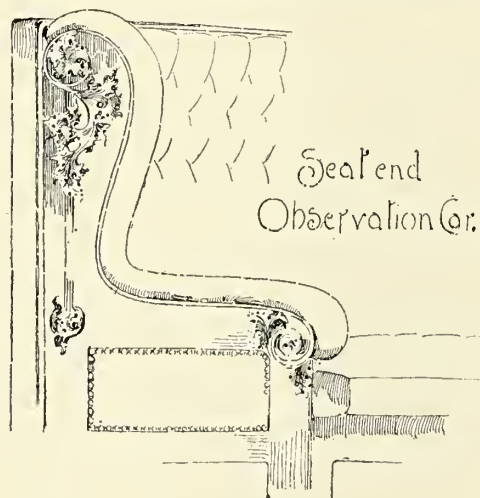


Recent Railway Architecture.

BY ROBERT CRAIK MCLEAN.

THAT architecture in its various forms is progressing, not so much toward a higher development, perhaps, as through the increasing demand for luxury toward a higher refinement in model and form, is nowhere more evident than when we go beyond its legitimate province of house building and see its effect in other works. In marine architecture this is so apparent that the July number of the *Century* gives space to two exhaustive illustrated articles bearing upon the subject, and while one directly treats of ornament, the other goes but little into the construction, and gives much space to the decorations of some of the floating palaces upon inland waters. Keeping even pace with these improvements that give added comfort and luxury to the traveler upon the great waterways of the country are the luxurious devices and designs employed in the manufacture of railway carriages. While some roads construct their own cars, the name of Pullman has become justly celebrated for the exquisite mechanism and superb appointments of the railway coaches produced by the company of that name.

It is not long since the sleeping car created a distinct epoch in railway traveling though they were at first almost devoid of all artistic ornament, the first efforts in this direction being observed in the private cars designed for railway magnates, and even in these the work was too often indicative of expense rather than artistic taste. But this was not to last. Railway competition, constantly urging



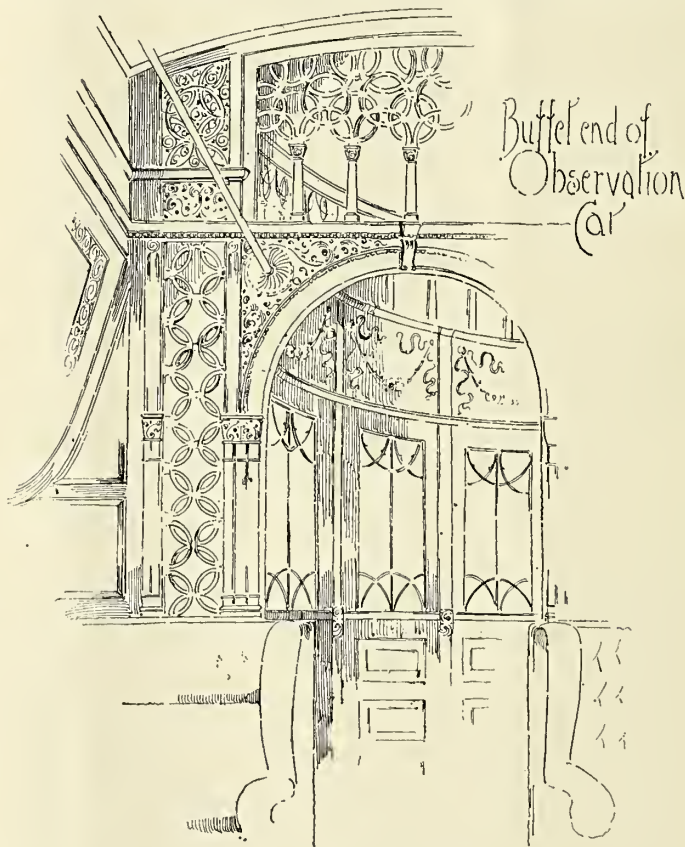
the managers of the great trunk lines to place still greater attractions before the traveling public, they no longer employ their bridge engineers to design their depots, the best architects in the country being called upon; and this innovation has given us some superb structures. Car builders having at last produced that wonderfully simple yet valuable attachment, the "vestibule" connection between cars, it seems that here the extreme of comfort has been reached, as far as construction is concerned. In design this is far from true. They are only beginning to realize that the stereotyped pattern of

ornament must go and the road which embellishes its coaches with the same harmony of decorative effects as the people enjoy in their homes is bound to receive the larger percentage of public favor.

A distinctive railway company to recognize this is the Chicago & Grand Trunk in connection with the Grand Trunk Railway of Canada. The development of the seaside resorts along the Maine coast, and particularly the islands in Casco Bay off Portland, and the rapidly increasing travel to this summer paradise by western people, has been fully appreciated by this line. The demand was anticipated rather than waited for, and the Pullman company called upon to supply seven of the most luxurious vestibule coaches it was possible to construct, to be run as a special train. No ordinary plan would serve, but each car should be especially planned; its ornament in some distinct architectural style; its upholstery and draping all in harmony, and each car containing every known modern device for safety and comfort. The result of the two years spent in thus organizing for victory was apparent when, at last, on June 26, the train stood at the depot in Chicago open for inspection before it started upon its initial trip to Portland, Maine.

The train was found well worthy of description, and the sketches presented of the magnificent carvings will convey some idea of the elegance of the car interiors. The train is called "The Seaside and White Mountain Special." Each coach is 72 feet long, and in exterior is modeled closely upon the usual sleeping coach plan, though the coloring is more than ordinarily rich and harmonious.

The entire train is lighted by incandescent electric lights, and in the first coach behind the engine, besides the baggage department,



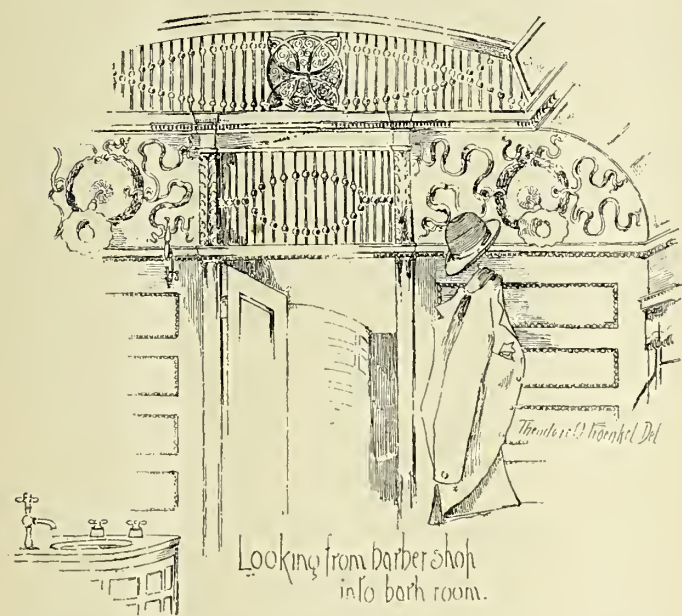
ample room is given to an electric storage battery, and also a commodious barber shop and bathroom, and a bathroom exclusively for ladies. The dining car has ample seating for forty persons, and no hotel can display a more perfectly equipped cuisine than that of the dining car Casa Monica.

While each of the sleeping cars are distinct in their style of finish, that displaying a well-executed pure rococo ornament is perhaps the most attractive. In the end of each of these cars is a stateroom composed of two apartments. These are all finished in white enamel and gold, with a corresponding upholstery that makes each a fairy



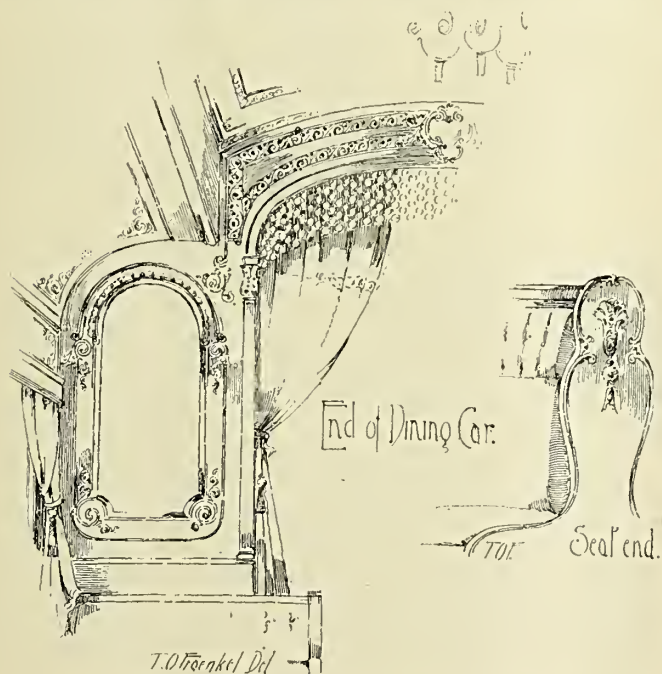
retreat that, with its delicate atmosphere, is so suggestive of a wedding trip to that ocean paradise, Cushing's Island, in Casco Bay, that it is dangerous for a young man to even look beyond the gilded doors.

It is, however, in the observation car Sybaris, which occupies the rear end of the train, that the best carving and most novel architectural effects are noticeable. The carving is a blending of



Renaissance and French Gothic, and the effect is superb. A double bay window occupies each side of this car, and is the most novel expedient observed in this splendid innovation upon modern car building. At the rear is a large railed platform to which the passenger can retire and view the scenery when he is tired of the luxurious upholstered chairs, which include the seating furniture of the car. At one end is a well-stocked buffet and on each side of the doorway are book cases filled with the latest standard works of travel and fiction.

On the first trip of this "special," which leaves Chicago every Wednesday, it was met with a perfect ovation at every city through which it passed, and upon reaching Portland the entire one hundred



and fifty passengers were escorted to the steamboat wharf by a band of music and procession of citizens of Portland, and the prominent members of the party were given a banquet in honor of the arrival of the most complete train that ever appeared in a seaboard city.

Casco Bay, with its three hundred odd islands, and the gem of them all, Cushing's Island, lying like a rough opal on its breast, received the travelers, and it will receive many more now that such superb connection is made between the western cities and its shores. As though in anticipation of this, and that an invitation might not be

lacking to those who in the great inland cities are looking for some place of rest and pleasure, the poet, B. F. Parker, writes, in the July *Century*, of Casco Bay, the spot on earth most loved by Longfellow :

If e'er you sail on Casco Bay  
When fields are green and skies are sweet,  
And watch the foam-capped waves at play  
Where land and sea touch hands and greet,  
As friend with friend in rude delight,  
Your soul, like birds at break of day,  
Will rise for many a joyous flight  
Midst summer isles of Casco Bay:  
Of Casco Bay! Sweet Casco Bay!  
Where life is joy and love at play  
Midst summer isles of Casco Bay.

Oh mild and glad and circling far,  
The ripples sparkle from your prow  
As silvery laughter from a star  
When Venus decks the evening's brow;  
And where the islands stand apart  
The ocean waves roll in to pay  
Some tribute from the sea's great heart  
To gentle, queenly Casco Bay:  
To Casco Bay! Dear Casco Bay!  
Your soul imbibes the salt-sea spray  
And sings with lovely Casco Bay.

Down smiling channels shadows run  
And shimmer on the green-blue tides:  
And, booming like a far-off gun,  
Where Harpwell sea from sea divides,  
You hear the breaker's sullen roar  
And watch the waves ascend in spray  
While all around, behind, before,  
The white sails swell on Casco Bay:  
On Casco Bay! Fair Casco Bay!  
The white sails fill and bear away  
The happy ships on Casco Bay.

#### A Suit for Architects' Fees.

A SUIT of considerable interest to architects and one that, but for the testimony of one architect, would have proved of great benefit to the profession was recently decided before Judge Tuley in the Circuit Court of Cook County, at Chicago, Illinois, upon the question of established rates of charges of architects. It is somewhat surprising that an old resident architect of Chicago and a member of the Western Association of Architects, should testify that just previous to the organization of his association the established schedule of the American Institute of Architects did not hold good in Chicago, and that four per cent was the usual charge of first-class architects.

It appears that Augustus Bauer and Henry W. Hill, architects, of Chicago, brought suit against Mr. Alexander F. Stevenson for the payment of their professional services in the erecting of a first-class apartment building located on the southeast corner of Division street and La Salle avenue, Chicago. The plaintiffs claimed for their services five per cent upon the cost of the said building, in sum total about \$1,200. The defendant sought as an offset to prove that the architects were negligent in permitting the introduction of a certain heating apparatus, but this important part of the suit resulting favorably for the architects the defendant then took issue upon the question of legitimate charges for services rendered.

The plaintiffs claimed five per cent upon the cost of the building and showed that at the time of the erection of the building, namely, October, 1884, the schedule of rates adopted by the American Institute of Architects were the generally adopted rates of the profession in Chicago, and the architects of the city based their charges on this schedule of rates.

Mr. D. H. Burnham, of Burnham & Root; Mr. James R. Willett, of Willett & Pashley, and other architects, testified that these rates, namely, five per cent, were the usual and reasonable ones for such services, and the charges according to the schedule of the American Institute of Architects was five per cent for work similar to that rendered by Messrs. Bauer & Hill. Mr. Frederick Baumann and a Mr. Fromann, architects, however, testified that at the time this building under controversy was built, the above mentioned schedule was not considered as the established rates but that four per cent was the usual charge for similar services by first-class architects in Chicago.

In consequence of this controverted evidence of the several architects testifying regarding rates, the court decided that the services of plaintiffs should be based upon the rate of four per cent, and gave judgment in favor of Messrs. Bauer & Hill for that amount.





### Wood Carving.\*

BY T. O. FRAENKEL.



CARVING on wood is probably the oldest branch of art. Apparently, the first weapon was a club, and the first attempt at decoration was scratching or carving on it. Among the Egyptians, Greeks and Romans it was much practiced; as a branch of art it was one of the earliest, and attained a high degree of development in the fifteenth century.

Art in all ages has been a great civilizer; the better understood the greater the effect.

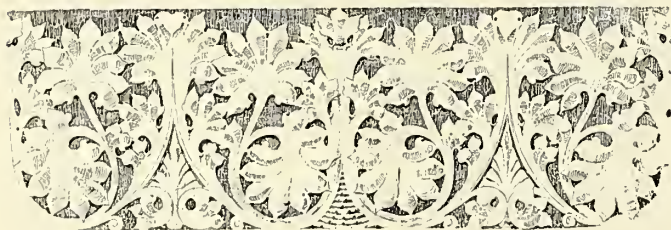
Where art is most appreciated the people are the most refined and enlightened. Wood carving, no doubt, is one of the earliest civilizers. The carving on the barbarian's club amused, pacified and humored him as he toyed with it, and on that account, probably, many a night on coming home from the club he sought his bed quietly without kicking over the chairs or raising *cane* with his wife. The savage, when about to deal a deadly blow, and suddenly thinks of the carving on the club, probably lets it down a little easier on that account. In Germany more than any other country carving in wood seems to have been encouraged, for not only are their churches richly decorated with exquisite carvings, but palatial edifices, the chateaus of the nobility, and even the residences of the wealthier citizens, boast of sculptured works in the same material in every variety, and of superior merit.

The student may trace in the churches of Germany, Holland, Belgium, France, Italy and England, the progress made during several hundred years from the rude and barbarous designs of the eleventh and twelfth centuries to the beautiful and splendid specimens of the sixteenth and seventeenth.

Toward the end of the middle ages the art of carving in wood was brought to a high degree of perfection. In Germany altars were adorned with carvings, often of large size, with numerous figures. The nude portions were carefully and tastefully colored after nature, and the draperies gilded. Specimens are to be seen in the churches of Altenburg, Eysfurt and Prague. Many of the churches also possess very beautiful examples of wood carving. Michael Wohlgemuth, of Nuremberg; after him Veit Stoss, were eminent carvers. The wood carving on the great altar of the cathedral of Schleswig, by Hans Buggeman, belongs to the beginning of the sixteenth century. Many graceful specimens of carving belonging to this period are to be seen in the museums. Nuremberg was celebrated for its wood carvings. Albert Brungel, a Fleming, gained distinction as a sculptor in wood at an early age.

The series of fine reliefs in the church of St. Marks, at Venice, describing the life of St. Benedict, carved in walnut upon the seats around the choir, have received much commendation from the connoisseurs. They were executed about the year 1633.

Grinling Gibbons, an eminent English sculptor and wood carver, of Dutch extraction, was born in London in 1648. He was appointed



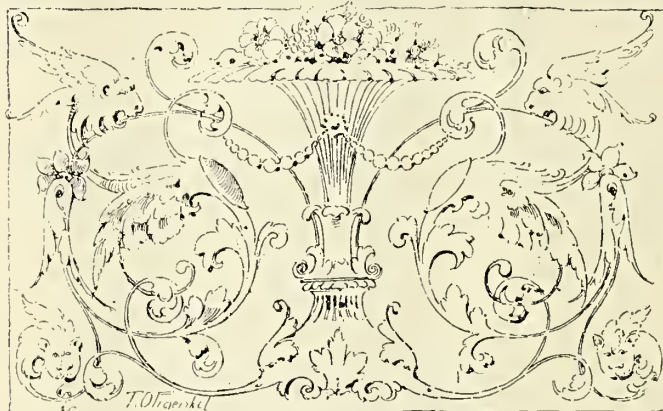
by Charles II to a place in the board of works, and employed in the ornamental carving of the choir of the chapel at Windsor. His carvings display great taste and delicacy of finish, and his flowers and foliage have almost the lightness of nature. For the choir of St. Paul's, London, he executed the foliage and festoons, and also the lime tree foliage which decorates the middle aisles. At Chatsworth and other mansions of the English nobility, he executed an immense amount of carved embellishment. He died August 3, 1721.

It is much to be regretted that all writers on art have totally omitted mentioning the art of carving, or when they have done so, it was in the most unsatisfactory manner. They appear to have thought carving a subject almost unworthy of notice, forgetting, or not knowing, that it is the origin of every kind of sculpture. Workers

in marble and metal they applauded, but the artist in wood found no chroniclers. There can scarcely be a doubt that the first material primitive sculpture was employed upon was wood; it follows that the first worker in wood was the first sculptor. What the first effort in design was, is not so easy to decide, but there is every reason to believe that it was small figures, intended to represent idols, or efforts to imitate natural objects.

The carver must reproduce in the material the thoughts originated in the mind of another. As the designer sees flowers, fruits, foliage, etc., in his imagination, so must the carver see the same in the material before it is cut, much like seeing a fish frozen in a cake of ice. A carver must possess the faculty of ideality largely, as well as the designer, to bring out the love of the beautiful, which enables him to describe the utopia of the designer more correctly.

In carving it is a difficult matter to set any rule as to how far nature shall be adhered to, or how far it shall be departed from. Nature can never be accepted as strictly architectural ornament; if merely copied from nature and without being idealized by the carver, would fail completely in its effect. It is true, their studying and observing nature is not amiss, as some of the finest effects can be gotten from it, though in no particular style have natural details yet prevailed, but generally modified to suit the material and the inventive genius of the carver, and showing the leading characteristics without imitation. Carved representations of natural foliage have been introduced in the decoration of architecture from the earliest



Renaissance Panel.

ages. Fruits, flowers, leaves and branches have been imitated in ornamental art in the conventional spirit of various periods. Egyptians in their architecture used papyrus and the lotus. The Greeks designed their foliage from the acanthus and honeysuckle. The Romans from the vine, the olive and the acanthus. I have no doubt they took the foliage they were most familiar with, and that which grew in their respective countries. The ease with which wood is cut and molded by hand, in almost any form desirable, gives great power to the carver for freedom in his work. The strength and tenacity obtained by close-grained wood admits of a vast amount of relief and open fretwork. The earliest Greek and Etruscan carved ornament will be found to have a marked leaning to low relief and repetition of simple forms. The Egyptian hieroglyphic system, Arabic and Moresque decoration, the early ornament of northern nations, Runic, Anglo Saxon, Irish and early Norman, with their interlacing zigzags, etc., will be further brought to mind while the system of Polynesian and other savage ornament is comprised in this variety. The effect of Indian carving is very pleasing to the eye. The values seem to be in the design of the fret, and not in the rendering of the surface. The ornament is generally brought out in fret form. If there are any stems, they are usually beveled off on the edge, and the surface of the leaves are simply cut hollow.

Renaissance carving displays great freedom of line and delicate appreciation of curves. It may be said to be based on the scroll, though the enrichment of the main lines which are the chief features on which the detail depends in Germany, France and Italy, the Renaissance ornament seems to be the favorite in England, the Gothic or modern Gothic, which is the natural foliage. The best results in the work executed in this country today are to be found in the Renaissance.

There are some very fine examples of wood carving in the East, around New York and Boston. The best work, I think, is in and near New York. In our own city there is some very good work, but it is very difficult to find, for there is not much of it.

\* Paper read before the Chicago Architectural Sketch Club, May 6, 1889.



I think the way carving is estimated upon here is very detrimental to the advancement of art. The object of the masses in the cities that grew up like mushrooms seems to be, how to make money. Most invariably the client wants ornament, but he wants it cheap. The experienced carver is brought in to figure against the inferior workman, and the work is seldom let that way, but, as far as I have seen, is usually let to the hardwood finisher, and not infrequently to the ordinary contractor, and it is like looking for a needle in a haystack to find where the work is being done. At last you find it, and examine the work, and should the people around you be oddly dressed, it would not be difficult to imagine yourself back with the barbarian and his club. It is not the fault of the carver in all cases; they are often driven to it. Often the foreman will come around and say, "Do not put too much work on that panel, we are not getting much for it," or "We are losing money on it." It is only through some conscientious carvers, who object to work that way, that we get an occasional glimpse of good work. Competition may be the life of trade, but I think it is a hindrance to the elevation and advancement of fine art in a great many cases, but I do not see how it is going to be avoided; it may be a necessary evil.

In carving, one must have very sharp tools, very frequently as sharp as a razor, sharpened according to the nature of the woods. California redwood is very difficult to handle, as it is soft and spongy and parts of it quite hard; the best way to treat it is to use a sponge well saturated with water and wet the wood thoroughly, and then cut it. I merely speak of this from experience, not advising anyone to use the wood, as it is nonsense to use it for decorative purposes. Butternut, basswood, whitewood, mahogany and birch require sharp tools, as these woods are soft and porous.

To begin, a carver must have, on an average, we will say, about fifty tools or chisels, and in order to have somewhere near a complete set, one can have two or three hundred, and still there would be no two alike, as all carving tools are ground at random or hap-hazard, but I have known of carvers executing creditable work with six, and in some cases doing better work than his neighbor with sixty. To do good, clean work it is of the utmost importance to have very sharp tools; without them the work would have the appearance of work done with a nail or hatchet. I had the pleasure of seeing, if you please, work of that kind in this city some years ago. It was at a carving school for ladies. They would toil probably two or three weeks, and in that time execute a masterpiece, with the help of the professor, and then take it home and spring it on their friends as their own handiwork. I am informed that there is a school in Cincinnati where they have more ornament than design. In spreading the tools on the bench, it is customary to lay the tools down with the points toward the operator. This is done (in laying the tools down) to prevent the point from striking the bench where there is more or less sand, which would dull the tools. In beginning a piece of carving the carver should know what position the work is to take, and to know whether it is going below or above the level of the eye. If placed above the eye, it should be cut vigorously with rough and effective lines. If the work is placed low or level with the eye, it should be cut smooth and effective. We will take, for example, natural foliage conventionalized. That is to say, we spread the foliage, flowers and stems, departing somewhat from nature in order to get the panel evenly filled up. For instance, we lay out the panel, starting the main stem from the lower left-hand corner, and lay it out the best we know how; in laying out the stems they should be drawn with graceful lines, or, in other words, they should not be drawn in the panel like a string of noodle. In showing the branch from the main stem or intersection of branches, they should be drawn or cut in this manner, and in cutting the foliage it should be cut with quick and sharp curves; it can be cut so and still retain a soft appearance. For an illustration, we will take a leaf laying over a stem in this manner; it is not right to have a leaf clinging to the stem and background. I have seen that mistake made quite frequently, both in drawing and carving. A panel of that description should be laid out without the thought of a background. The shadows will take care of themselves. An experienced workman would turn that leaf up in the opposite direction, in order to avoid that effect and give the stem freedom and the leaf a light and airy appearance. If the panel is below the level of the eye, the leaves and flowers should be face up, and very little of the edge of the leaf shown, and should be undercut to give it a light appearance, the reverse if looked up to. After the design is laid out, the work is set in (a carver's term) roughly, and then grounded out, and then beginning on the surfaces roughed out to the general form striven for. Then the work is set in to the form of the leaves and the surface cut smooth; the ground is leveled as much as possible, and then stamped; it is then gone over with a stiff brush, and the panel is finished. The brush is used to produce a polish on the work, and to take off the



newly cut and raw appearance of the wood, and to give it the same tone of the newly surfaced margin. Sandpaper should never be used in good work, as it takes out all the life and expression in it. Carving should remain as the tools leave it. Not long ago I saw a finely designed Renaissance panel intended for a parlor mantel. The surface of the ornament was cut as good as anyone could expect from a person that would cut the ground in the manner I saw it. The ground was cut rough and jabbed in every way. It looked like a scene in the Rockies, leaving out the poetry, and not a ghost of a show for the delicate lines or shadows. I think it is wrong to cut the ground in this way; it may possibly do for some Byzantine work where there is little or no ground shown, but I would prefer to see the ground cut on a general level. In the outline and form of the leaf, it should be cut bold and clear with very little line or vein work on the surface, which would jumble the form and outline. Very often you find, where the form of the foliage is entirely neglected and the surface of the leaves so cut up with innumerable lines and stems, that to the eye the form of the leaf is completely destroyed. This, I think, is the fault with some of our Byzantine work. I maintain it should be cut with a soft effect, and it can be cut so and not look limp and lifeless. The number of lines produce a dark tint. Thus you have a mass of shade with innumerable small shadows, but no parts broad enough to receive the necessary amount of light. In our city of smoke, and fog now and then, and very little sunlight, where the materials are blackened with smoke and dust, carving should be cut clear, bold and distinct. In carving, the position of ornament should be treated according to the position it is to take, and one should be careful in its use. If out of place it would not look well in a piece of furniture, no matter how well it may be cut. On the other hand, ornament in its proper place should be cut well. Better leave it off entirely if you cannot have it good.

When you have a sunk panel with a small margin, always cut the ornament out of the solid, and call for it on the details. In modern cabinet work it is often glued on to save expense. Work of that kind is not exactly objectionable, for good glued work will hold on as well as the solid, but there is always a doubt whether it is glued well. In some cases it is not practical to cut it out of the solid, owing to the difficulty in getting the ground level with the outer surface or margin.

In studying ornament I would advise working from photogravure plates. Printed ornament does not fill the bill, as it does not show the delicate effects on the surface of the foliage. I would suggest Hauptman's Italian Renaissance, as these plates are all taken from casts or original models. If one can draw Renaissance it is not difficult to work in any style that presents itself. Keep on with your pen and ink and pencil and water color, study and observe nature and everything pertaining to art; do not imagine you are not built that way, but go right in with a will and in time you will surprise yourself.

### Consolidation of Architectural Clubs.\*

BY GEORGE W. E. FIELD.

ALTHOUGH the idea of an alliance of art societies in the United States is an old one that has been cropping out from time to time in the past, it remained for the editor of the *Art Age* to further develop the scheme, to enlarge its scope and to present it in the shape of a tangible proposition to the art and architectural associations scattered throughout our country.

Mr. Turnure's proposition is one of greater magnitude than any heretofore suggested. So far it was only proposed to unite the graphic and plastic arts together in a national society of artists. The feasibility of the scheme was generally acknowledged, but through local prejudices it never matured. Thus it was allowed to rest until Mr. Turnure took it in hand. He conceived the idea of enlarging the scope of the proposed alliance by including architectural, educational, technical and general art organizations in the composite whole. Not only would this extend the power of a national academy, but it would also secure the coöperation of these several branches in attaining the desired end.

But the scheme was too suddenly broached. Its vastness has so bewildered the local societies that they have really not given the matter its due recognition. They have had no time to consider it in its new phase, and so we must await deliberate action on their part. Meantime, as our interests are now centered in the architectural section only, it is but natural for us to consider what is best to do under the existing circumstances. For us to take any initiative in connecting our organizations with the proposed general consolidation, would be folly at the present time. Our architectural clubs are too disconnected and localized at the present day, and so concerted action would be out of the question. If each one were to attempt to send representatives to the proposed congress it would mean ruin to many of our associations, and certainly a complete obliteration of our identity. It is, therefore, evident that our first duty is to effect an alliance of all architectural clubs, and for the present to confine our efforts to the more limited undertaking of a draftsmen's league. If such an organization were once effected it would then be an easy matter to decide as to our action in the proposed consolidation, and should we be in favor of further connecting ourselves with the composite association, then we could arrange for a fair and equal representation at the first congress.

In the latter part of the year 1887, the secretary of the Buffalo Architectural Club issued a circular to some seven or eight like organizations with reference to the consolidation of architectural clubs.

\* Paper read before the Cincinnati Architectural Club, June, 1889.



The Cincinnati league was one of the first to take action on that circular, and passed a resolution giving its hearty approval to the measure, and offering its coöperation in the work. A month or so later, we received a letter from Buffalo, stating that ours was one of the very few favorable answers it had received in response to their circular, and so they concluded to let the matter remain in *statu quo*. The only reason we can give for this cool reception of the proposition is, that the clubs being at that time comparatively young organizations, they were afraid to entertain such a new scheme that would naturally have to be considered with attention to the expense it would necessitate. The scheme as formulated omitted to take into account the financial view of the question, and so the doubts entertained on this point by the young clubs could not be explained away.

At about the same time that the *Art Age* appeared with Mr. Turnure's scheme in print, the Cincinnati club again had the question under discussion, and with the conviction that an appropriate time had come for such consolidation, it was maturing its plans for the consideration of the other architectural clubs. The first step that suggested itself to the committee in charge of the movement was the desirability of securing an official organ. Now, by this term we did not mean to specify everything of its ordinary acceptance. We wanted an organ that would devote its pages to the publication of matter of direct interest to the draftsmen of America; to reproduce only the best of our work; to support the scheme of consolidation, and when that was effected, to fearlessly criticize our actions and work whenever it became necessary to do so. An organ that is slavishly pledged to recognize only good in every action of the body they are serving, becomes a mere machine, that would in the end prove a baneful influence rather than a goodly factor. With the idea of securing just such an independent organ, the *Art Age* was picked out after a long and deliberate consideration, and our secretary was told to address a proposition to that journal, and at the same time to issue a circular to the several architectural clubs, making mention of the step we advocated, and asking for their coöperation. In reply to our letter, which was perhaps not very explicit, the *Art Age*, under a natural assumption that we expected a "voluntary servant subject to direction," as they express it, begged to decline the position. Of the clubs with whom we corresponded, fourteen in number, we received answers from a little more than half. Detroit, Rochester, Minneapolis, St. Paul and Columbus declared in favor of the scheme. The Philadelphia T Square Club was in hearty sympathy with the movement, but considered it premature.

Chicago gave the question a great deal of attention, but as yet no definite action has been taken. Mr. Mundie, a member of that club, thought it of sufficient importance to introduce the subject in a paper of his, entitled "Sketch Clubs," read before a meeting in the month of March. He undertook to handle the subject from a critical standpoint and endeavored to find obstacles everywhere for the sake of argument. His idea was good. It is just such questioning and search that will point out the necessity of consolidation. Mr. Mundie himself acknowledged that he was open to conviction as to the feasibility of the scheme, and, in fact, would like to be satisfied on the score.

The fact that such an association will tend to advance the draftsman's art seems to be generally conceded. One cannot help but acknowledge this. Local organizations are apt to be so conservative that their own interests are frequently jeopardized through self-absorption. The effect of an annual convention would be stimulating. It would create comparison and discussion to develop into greater ambition among individual members, and a friendly rivalry between the local clubs. It would originate and elevate esthetic ideas that could by no other means gain existence.

Let us put aside temporary local prejudices for the certainty of a permanent gain; instead of dissipating our energy within the confines of our own locality let us have the whole country for our field, and an opportunity to improve our chances for earning more enviable recognition of our talents than we can ever gain within a limited section.

And now let us consider the feasibility of consolidation. This is what troubles the skeptics. The easiest way of convincing them is by giving in outline, first, the objects and scope of the alliance, and then, by suggesting the means whereby it may be effected, the whole thing can be simplified and shown to be practicable beyond a doubt.

To begin with: The object of consolidation is the general improvement of draftsmen and their art through an extended intercourse between the several local organizations that are now completely separated from one another.

Such a consolidation would necessitate:

*First.* An annual convention.

*Second.* An annual exhibition to be held at the time of the convention, and after to be transported from place to place within the circuit of connected clubs.

*Third.* A regular system of interchange of work in addition to the above.

*Fourth.* A bureau of information, for which each local club must arrange for the benefit of visiting members of the Association, to provide all information with reference to choice sketching subjects, prominent buildings, etc., in their several localities.

*Fifth.* An annual competition, with medals for award. This we are sanguine enough to expect will develop in time to a traveling scholarship or even something more substantial.

*Sixth.* The issue of a quarterly publication to include the prize designs of clubs in connection with the league.

Presuming that for the first year we would confine ourselves to the first five of these undertakings, let us now see to what extent we could make provision for meeting the necessary expenses.

Mr. Mundie, in that paper of his to which I have already referred, made the bold assumption that 50 cents per month per member would

not even suffice to cover the printing bill of the proposed league. He actually figured on a membership of six hundred, and still trembled at the undertaking. Why, if all our clubs were half as sanguine as that, consolidation would be an accomplished fact in two months. Mr. Mundie must entertain exalted ideas for the proposed alliance to dream that mere incidental expenses will foot up a cool \$3,600 per annum. Why, that exceeds by several hundred dollars the like expense of the Royal Institute of British Architects.

We ought to be more reasonable in our expectations. With such lofty ideas as that it is not surprising that the project seems impracticable. Now let us compare with a few facts: The report of the treasurer of the National Association of Builders for the year just ended shows a total expenditure of \$5,300; this figure includes the secretary's salary, which amounts to \$3,000. The assessment on the membership per capita was only \$2.00 for the year. The printing bill (not including annual report, but with postage, telegrams, type-writing and stationery added) amounts to only \$600. We must remember in this case the enormous membership to be considered in the matter of postage and circulars, and also the quantity of statistical work attended to by the secretary through the post. All this helps to swell the total, and none of it will apply to our proposed association.

Now, with figures such as these to guide us, let us consider our own probable expenses and assessment.

To begin with, it is but reasonable to expect each club to make its own provision for sending delegates to the convention, at any rate for the first year or two it would be but right for them to do so.

For the transfer of drawings, etc., on account of annual exhibition and interchange, an express bill of \$50 would cover all.

The bureau of information can be in charge of the local executives, and they would willingly attend to this department for the welfare of the league.

For competition and medals allow \$150. Printing, postage and stationery would take \$100 more.

The secretary's duties for the first year, at least, would be so nominal, in fact, that there would be no difficulty whatever in finding men both capable and willing to undertake it.

We can, therefore, now see that the actual expenses for the first year would not exceed \$300, and really it should not.

Compare with the probable receipts: To be careful in our estimate let us presume an average membership of 20 per club. There are from 15 to 20 thriving clubs in America. Suppose we get but 8 to enter the scheme, this would mean 160 members of the league. Fix an admission fee of \$5 per club, and in addition an assessment of \$2 per capita. This would give an income of \$360 for the first year; an amount that would be supplemented to a surety by subscriptions and gifts to the league. Is this not sufficiently promising for an effort? It is true we are not allowing for a blare of trumpets, nor a \$1,000 banquet at the convention; but these are not what we want. We are not looking for luxuries, but we are striving after what is a growing necessity. If we, as draftsmen, want to compare with our more fortunate brothers in Europe who have the benefit of such institutions as the "Ecole des Beaux Arts," it is only by creating for ourselves a system of distribution for the varied talents now scattered throughout the country, and which must be centralized in a composite whole for the final attainment of individual benefit. We have ambition among us and plenty of it, but it greatly needs the stimulant that is now within our reach if we would only stir and act.

### The Phimister Medal Competition.

THE following code has been issued by the secretary of the Chicago Architectural Sketch Club to govern the competition for members of sketch clubs for the D. G. Phimister gold medal:

An invitation is extended to all members of sketch clubs in the United States to enter this competition, secretaries of clubs to collect drawings from their members. Drawings to be sent, express paid, to Charles A. Kessell, secretary of Chicago Architectural Sketch Club, Art Institute, Chicago, Illinois, on or before September 23, 1889, and marked Phimister Competition.

The following is the competition in detail as arranged by Architects John W. Root, W. L. B. Jenney and L. H. Sullivan, who will act as judges:

Drawings to be marked with a motto or device, a corresponding motto or device on a sealed envelope containing name and address of competitor.

The problem is a public library for a rich suburb. The library to contain 50,000 volumes; to have a large entrance hall as a gallery for American works of art, and also a summer reading room in the shape of an arcade or colonnade or terrace.

Material and cost not given.

To be two (2) plans, one perspective; two (2) elevations, not shown in the perspective; one sheet of sections. Wash drawings in India ink or sepia. Drawings to be  $\frac{1}{8}$  inch scale on sheets 22 by 28. Drawings to be sent flat.

CHARLES A. KESSELL, Secretary C. A. S. C.

Unlike the Robert Clark competition this is for members of sketch clubs exclusively. Circulars containing the above code or any further information can be obtained by addressing the secretary, care of THE INLAND ARCHITECT.

"BRICKS AND BRICKMAKING," a sixty-page pamphlet reprinted from the *Brick, Tile and Pottery Gazette*, and revised by the author, Alfred Crosby. The letterpress of this little book is more a matter of hints and suggestions than critical knowledge. The treatment is under six main heads, namely, "Of Clay," "Preparation of Clay," "Brickmaking," "Repressing," "Drying" and "Burning," followed by supplementary chapters on "Fire-Clay Goods," "Brick for Sanitary Purposes" and "Refractory or Fire Brick." While not an exhaustive work, it will prove an interesting one to all who have or may give the subject of brickmaking their attention, and may be the means of suggesting new ideas and perhaps clear away many obstacles that now annoy some present makers and sure to be encountered by beginners. Published by The Brick, Tile and Pottery Gazette Company, Ottawa, Illinois. Price 50 cents.



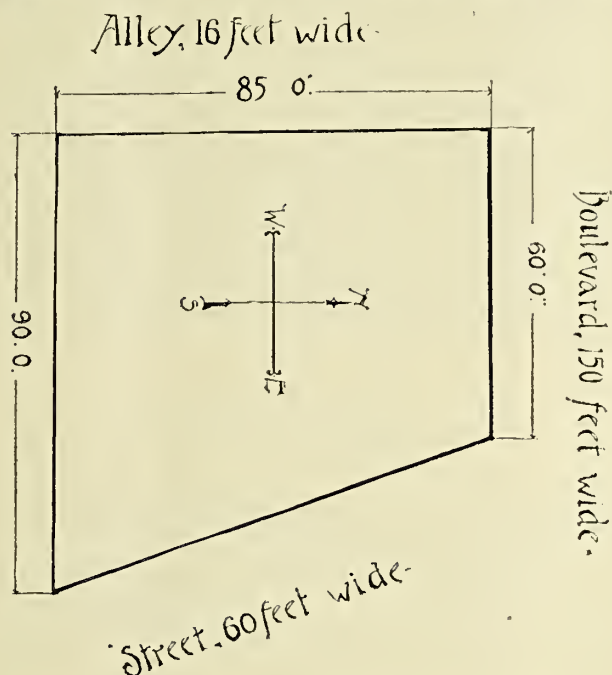
### The Clark Prize Competition.

THE committee selected by the Chicago Architectural Sketch Club to draw up a scheme of competition and adjudicate the drawings for the gold and silver medals offered by Mr. Robert Clark, of Chicago, to the draftsmen of the United States, has issued the following circular and code, which shall govern the competition for 1889:

*To the Architectural Draftsmen of the United States:*

Mr. Robert Clark, of Chicago, being desirous of actively aiding the development of architectural design and draftsmanship in this country, has placed at the disposal of the Chicago Architectural Sketch Club, a sum of money, the interest of which is intended to provide for the award of a gold and a silver medal to be given annually to the victors in a competition, free to architectural draftsmen under thirty years of age and not practicing architects.

To the undersigned committee has been intrusted the working out of a programme for this year's competition, which is as follows: Designs, illustrated by drawings drawn to a scale of  $\frac{1}{4}$  inch to the foot, are required for an apartment house for tenants of moderate means, say with an annual income of from \$1,200 to \$1,800. This building is to be four stories in height, and is to have basement and attic. No elevator will be required. The site is at the intersection of a boulevard and a side street, its dimensions as shown on the accompanying diagram.



The first story is not to be used for stores. The drawings are to be India ink line drawings, and to consist of plans of basement, first and second stories, of one geometrical elevation, and one perspective. The point of sight of the perspective is to be on a line bisecting the obtuse angle of the site and two hundred feet distant from the same, and fifteen feet above the street grade.

The drawings are to be marked with a symbol or nom de plume and accompanied by a sealed envelope marked in the same manner, containing the name and address of the author of the corresponding drawing. All drawings are to be delivered to the secretary of the Chicago Architectural Sketch Club at the Art Institute Building, in Chicago, on or before noon, October 1, 1889.

In awarding the prizes, the committee will take into account not only the degree of merit of the draftsmanship but also that of plan and design.

DANKMAR ADLER, architect,  
HENRY IVES COBB, architect,  
LORADO TAFT, sculptor,  
N. CLIFFORD RICKER, architect,  
SAMUEL A. TREAT, architect,

Committee.

The diagram is drawn to scale and the circular as printed above is the official one, another having been issued which was afterward modified and corrected. Mr. Adler is chairman of the committee and Mr. Cobb secretary. Requests for further information should be addressed to C. A. Kessell, secretary C. A. S. C., care of THE INLAND ARCHITECT.

### Association Notes.

#### SYRACUSE SKETCH CLUB.

A sketch club composed of architectural and mechanical draftsmen, and others interested in art matters, has been organized at Syracuse.

The following officers were elected: President, James A. Randall, vice-president, James A. Johnson; secretary and treasurer, William H. Lord.

There is enough good material in Syracuse to build up a flourishing club. Its success is assured.

#### EDINBURGH ARCHITECTURAL ASSOCIATION.

A very pleasant affair was the annual excursion of the Edinburgh Architectural Association which occurred Saturday, June 15, to Peebles and the vicinity. The programme was a large and varied one, embracing subjects both domestic and ecclesiastical. Arriving in Peebles about 12 o'clock, the party drove to Neidpath Castle, which was examined by the company, to whom explanations were given by Mr. David Macgibbon. He explained that it had originally been one of the keeps of the fourteenth century, and had been the residence of the Hays of Yester. It was an example of the L plan of the second period, built with very heavy walls, in some cases more than ten feet thick. The party also visited Drochil Castle, Lyne Church and Roman Camp, Barns Tower, and Peebles churches. Drochil

Castle, Mr. Macgibbon explained, had been built by the Earl of Morton shortly before his execution in 1551. He described it as intended for a palace rather than a castle, and an examination of its arrangements quite confirmed that view. The churches were examined under the conductorship of Mr. Hippolyte J. Blanc. He noted Lyne Church as one of a like kind to pre-Reformation churches found in various parts of Scotland. It was a structure of about the end of the fifteenth century, and was singularly devoid of architectural detail or ornamentation. In Peebles the party viewed the remains of the original parish church and other ecclesiastical edifices, returning home with the evening train very much pleased with their day's outing.

#### DENVER SOCIETY OF CIVIL ENGINEERS.

The leading civil engineers of Denver have formed an association with a good list of members and the following officers: President, Colonel E. S. Nettleton; vice-president, R. A. Wilson; secretary and treasurer, W. W. Follet; executive committee: Professor Van Diest, Frank E. Edbrooke, R. D. Hobard and the president and secretary. The association rooms are in the Tremont Block.

#### COLUMBUS ARCHITECTURAL SKETCH CLUB.

The club exhibition of drawings which, together with a literary and musical programme, will be given at the Orpheus club rooms, July 9, promises to be in every way successful. Drawings have been received for exhibition from sketch clubs at Chicago, Cincinnati and other cities. The musical and literary programme which will precede the exhibition of drawings will include addresses by F. W. Elliott, president of the club, H. W. Lum and Architect J. W. Yost.

#### WASHINGTON BUILDERS' EXCHANGE.

Articles of incorporation have been issued for the formation of a builders' exchange at Washington, D. C. The meeting will take place July 15. This will be a general exchange, representing the building interests, and does not include the Master Builders' Association, which has been established for some time and is composed exclusively of general contractors.

#### DETROIT ARCHITECTURAL SKETCH CLUB.

The club competition, subject rendering in pen and ink, closed June 6, was adjudicated by the Michigan State Association of Architects. Albert Kahn received first place, William B. Stratton second place. Both draftsmen are with Architects Mason & Rice. The subject for the next competition is hardware trimmings, and will be for prizes offered by the firm of Hodgson & Howard.

#### CHICAGO ARCHITECTURAL SKETCH CLUB.

At the meeting of July 1 Mr. R. A. Denell read an interesting and well-written paper. The subject was "Architectural Students." The paper was listened to by a full attendance and generally appreciated.

The code for the Phimister medal competition was announced, and also that of the Robert Clark medal competition, both of which are printed elsewhere in this number.

The report of J. W. Root for the Adjudicating Committee on the 25-foot city front competition, gave "Enigma" (C. A. Berry) first place; "Sponge" (A. Heun) second place; "Triangle" (A. R. Neimz) third place and honorable mention to "Gothic" (F. Parmentier) and "Cronin" (R. A. Denell.)

Mr. Julius Harder, of New York, was a visitor. Mr. Harder is a member of the New York Architectural League and is known generally to the profession as the third prize competitor in both of the League competitions. The club members gave him a royal reception.

### New Publications.

NOTES ON THE COMPRESSIVE RESISTANCE OF FREESTONE, BRICK, PIERS, HYDRAULIC CEMENTS, MORTARS AND CONCRETES. By S. A. GILLMORE: John Wiley & Sons, New York.

In these notes are given the results of tests made by Mr. Gillmore and his assistants by a machine of extreme delicacy erected some years since for the purpose of making tests, instituted by the government in accordance with an act of congress in 1875. This series of tests carries much further the experiments then instituted, and covers ground not heretofore covered by any tests made in this country. The results obtained are extremely valuable in many particulars. For instance, the tests made a few years since in this country, as well as tests made by foreign experimenters, seemed to indicate the existence of a law of compressive strength per square inch of bed surface, with increasing size of cubes. While there may be such a ratio within certain limited dimensions, the existence of this law was not confirmed when larger tubes were tested, owing, perhaps, to lack of homogeneity in the larger masses. Again, tests of cements have generally been of briquettes of cement, and have not taken into account the elasticity and resistance of the cement when combined with sand and stone in varying proportions. Hence cements showing a high degree of resistance, when tested pure, have, in many instances, failed to meet the test of actual use. Many of the tests here reported have been made with cements in combination in mortars and in concretes. It is noticeable that a mortar is usually weaker than a concrete made with the same mortar. Some interesting results were obtained by repeating the application of the same test to a cube, with the result in one case of an 8-inch cube of mortar, showing a speedy failure upon the second application; while in another case a 16-inch cube of concrete was only broken upon a fifth application of the maximum load. The book contains extensive tables, exhibiting in detail the operation of the tests, and accompanying strain sheets show the mode of failure.



### Our Illustrations.

Design for stable; George W. Maher, architect.  
Renaissance panel, Theodore O. Fraenkel, des. and del., Chicago.  
New York Sketches, No. 1, Colonial work; J. A. Schweinfurth, del., Boston.

The Paris Exhibition. Sketches of some of the buildings illustrating the history of human dwellings.

Fireplace in residence of Mrs. F. B. Standart, Detroit, Mich., Irving K. Pond and Allen B. Pond, architects, Chicago.

Chicago Architectural Sketch Club competition for a twenty-five-foot front residence in French chateau style. First place, A. C. Berry; second place, A. Heun; third place, A. R. Niemz; mentioned, F. Parmentier and R. A. Denell; other designs by C. Kessell and C. B. Schaefer and O. C. Christian.

The Manhattan office building for C. C. Heisen, fronting on Dearborn street and Third avenue, Chicago; W. L. B. Jenney, architect, Chicago. The building has two fronts, each 150 feet in length, and a depth of about 68 feet, situated between party walls. On the north is a building occupied by printers, in the basement of which are three boilers against the party wall, furnishing power for the steam presses, and on the south a fine office building, the basement for rent as stores or shops. To have carried these party walls the sixteen stories, would have necessitated the removal of the boilers and the building of new foundations under each of the walls, requiring the use of each of the adjacent basements for some months, and from the necessities of the case entailing a very large expense, particularly the removal of the boilers, depriving that building of power until they could be reset. To overcome these difficulties the party walls are used for but little more than their present height, and the upper portion of the building carried on the inner partition walls of the end stories. The building is throughout a skeleton of steel, fireproofed, the columns in each pier extending to the footings. The elevators are four in number, situated in the center of the building. The offices and stores occupy the entire street fronts, with the sole exception of the entrance ways, giving a very large proportion of rentable space.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Unitarian Church, Baltimore, Md.; Benjamin Latrobe, architect.  
Michigan Central R. R. station, Ann Arbor, Mich.; Spier & Rohn, architects, Detroit, Mich.

Residence of Dr. V. C. Vaughan, Ann Arbor, Mich.; Irving K. Pond and Allen B. Pond, architects, Chicago.

The Kensington apartment hotel, Boston; J. Lyman Faxon, architect. It contains thirteen suites of ten rooms each.

Residence for H. H. Hutchins, Winthrop Highlands, Mass.; George F. Loring, architect, Boston. Inside finish in natural woods, oak ceiling paneled in hall; cost \$9,000.

Residence of William Chesholm, Cleveland; C. F. Schweinfurth, architect. Material, Lake Superior red sandstone, finished in hard woods throughout; roof black Maine slate; cost \$76,000.

Residence of G. W. Pack, Cleveland; C. F. Schweinfurth, architect. First story blue sandstone, portico of stone, 18 by 48 feet; second story and roof, cypress shingles; first story, oak finish throughout; second story, cherry finish throughout; third story, vulcanized Norway pine, all natural finish; furniture, gas fixtures, hardware, etc., special designs in keeping with woodwork, etc.; cost \$60,000.

### Mosaics.

McLEAN county, Ill., proposes to build an insane asylum at Bloomington at a cost of about \$25,000.

THE L. H. Prentice Company, of Chicago, have removed their offices and steam and hot water heating plant to 203 and 205 Van Buren street, corner of Franklin.

JOHN M. DUNPHY, of Chicago, has been appointed city superintendent of buildings, vice Architect Willoughby J. Edbrooke, resigned. Mr. Dunphy has been for many years a prominent contractor and builder.

MR. B. H. BROWN, who, for several years, was office manager for Architect S. S. Beman, has taken the management of the American Granite Company, of Chicago. Mr. Brown has identified himself with a most superb granite, and his own reputation will make him sought for by architects.

MR. CLARKE MERCHANT, the well-known importer of tin plates, has just returned from a ten or twelve weeks' visit abroad, during which time he combined business with pleasure, taking special pains to personally look after the various details of manufacture concerning the guaranteed roofing plates which the firm of Merchant & Co. handle.

MR. C. L. HUTCHINSON's celebrated and greatly admired painting of Venice, by Martin Rico, has been successfully reproduced in etching by Mr. Arthur Dawson, of this city. There is probably no etcher in this country who could have preserved the wonderful qualities in the picture better than Mr. Dawson has done, and we predict for him the proper recognition by the Chicago public on his masterful work.

A WATERPROOF paint, manufactured at Boston and well known in the East, has recently been placed upon the western market, with the general agency at Chicago. This is known as government waterproof paint, manufactured by the Government Waterproof Paint Company. This paint has chemical properties that successfully resist ammonia and the action of sea water, and sustains its original gloss under these trying conditions. It does not crack or peel on tin roofs, acting as a cement, and will not peel off spruce, and is unaffected by sap. Each

gallon covers about two hundred square feet of surface. It is a pleasure to direct the attention of architects to this paint, as its qualities are unsurpassed. The western manager of the company, Mr. Charles F. Haywood, at 59 Dearborn street, Chicago, has had a large experience in the paint business, and should be consulted whenever a reliable waterproof paint is required.

THE Northwestern Terra-Cotta Works have added a large three-story addition to their works. The lower floor is arranged for shipping, and the upper floors will be used for modeling. The ceilings are 20 feet high and the windows near the top, giving abundant light, and also allowing the entire wall surface to be used for the work in hand. This addition makes this plant one of the most complete architectural terra-cotta works in the world.

THE "Builders' and Traders' Hand-book of the Builders' and Traders' Exchange of Chicago," for 1889, compiled by Secretary James John, has been issued. The book contains the by-laws and business classification of members of the exchange; rules of measurement of mason work; building, fire and sanitary ordinances of the city of Chicago; lien laws of the State of Illinois; and a list of Chicago architects, together with catalogue and rules of the exchange library. The book is pocket size for convenient reference and will be found very useful to the building trades.

THE Cole Conduit system for electric light wires has been tested for two years at Detroit and has not only proved practical in every respect, but the highest claims that have been made for it, which are in point of rapidity and cheapness of construction, of dryness and the conservation of insulation, its accessibility and the facility with which any wire or set of wires can be strung or removed or new connections made therewith, without the necessity of going to a man-hole for that purpose. The company has been awarded a contract for the construction of one and a half miles of 3 duct conduit by the Fire Commissioners, after a careful examination by their electrician of a half dozen different systems. This is the system that successfully controverted the statement of the Brush people that no conduit could completely insulate their wires.

### Building Outlook.

OFFICE OF INLAND ARCHITECT, }  
July 10, 1889. }

The reports from the larger financial and manufacturing centers of the New England and Middle States up to June 30, present a favorable showing, all things considered, with the reports furnished up to the same date last year. There has been a still more active distribution of material in all the leading lines of raw material. Iron, steel, coal, petroleum, as well as stone cement, and a long list of manufactured products for building purposes have been moving with remarkable activity, not only in Eastern markets, but in almost all the leading Southern and Western markets, notwithstanding the very heavy production complaints of an accumulation of products are very rarely heard. The lumber manufacturers have been particularly careful to avoid any course of conduct that would result in the accumulation of stocks. The Western demand has been heavy and the distribution was considerably ahead of last year, and the indications at hand are that the demand for the summer and fall will exceed those of last season. Building reports are a goodly part of this showing, and make apparent the fact that more money is being put into buildings than last year. In Philadelphia the increase in outlays amounts to as much as 25 per cent. In New York City the increase will reach 20 per cent at least, some put it at 30 and 35 per cent. In Boston more money has been spent this year than last. The same is true of New England towns and cities, and particularly Pennsylvania. Contractors and builders in Ohio, Indiana and Illinois generally report a very active distribution of all kinds of material. The sawmills, planing-mills, stove works, agricultural implement works, and the larger factories and machine shops have not been running on short time in any of these states. Now and then an exceptional dullness of a few days has arrested operations; but speaking generally the industries throughout the region east of the Mississippi river have not been overtaken with dullness or even low prices. The spirit of competition is still very active all over the country, but it is operating within legitimate limits. The commercial failures of the past six months exceed those up to the same time of 1888 by 664. The liabilities are not quite up to last year. The New England States suffered the worst. The Middle States came next. The Western States escaped without any increase in the number of failures or liabilities. The spirit of enterprise has been stimulated all over the West, and schemes and projects are now being discussed and agitated which will, no doubt, very materially assist in maintaining the healthful activity all over the country which has been enjoyed since the opening of the building season. Building material is quite uniform in price. All kinds of lumber are in good supply. Southern stocks are increasing in Northern markets. All kinds of nails are selling freely at steady prices. Barbed wire is in very active demand, and a combination is being made for the purpose of strengthening prices. White pine rules firm, and some dealers claim the tendency in prices is upward. The brickmakers throughout the country have had an exceptionally flourishing season. Building operations in all of the larger cities and towns will be prosecuted with much persistency. Whatever next season may bring, labor is contented for the present. A few days ago a significant circular was issued from Pittsburgh by a number of labor organizations, in which peace was counseled. It is given out, though not authoritatively, that trade organizations are likely to adopt no position in the eight-hour agitation to be inaugurated next year. The money markets are easy. While a great deal of gold has been exported to settle balances, returning investments are helping to equalize matters. Foreigners manifest unusual confidence in American investments outside of American railway securities; even in this branch there are signs of stronger faith. Our railway system is gradually marching through the difficulties which overconstruction caused, and there are signs that eventually the interests of railroad managers, stockholders and the public generally will be harmonized. A great deal of new railroad building is still talked of, but it is not likely that the present year will be a phenomenal one in railroad construction.



## Synopsis of Building News.

**Bay City, Mich.**—Architect D. P. Clark: For Joseph Turner, two-and-a-half story dwelling, 35 by 48 feet; pressed brick and terra-cotta front; shingle roof; bathroom; electric work; gas; common, plate and cathedral glass; steam heat, and modern conveniences; cost \$7,000. For A. McFarland, Flint, Mich., residence; brick and frame; shingle roof; wood cornice; common, plate and stained glass; mantels; plumbing; kitchen and bath fixtures; hard and soft wood finish, etc.; cost \$7,500. For Swan Johnson, Bay City, Mich., two-story store building, 25 by 60 feet; common and pressed brick; composition roof; galvanized iron cornice; gas fixtures; plate glass; grates; hard and soft wood finish, etc.; cost \$3,500. For Hurley Bros., one-story store building; common and pressed brick; tin and composition roof; galvanized iron cornice; plate glass; gas fixtures, etc.; cost \$28,000.

**Buffalo, N. Y.**—Architect J. G. Balsam: Two residences for Mrs. J. Clark, 26 by 42 feet; two stories; brick; shingle roof; iron crestings; annunciators; bathroom outfit; electric bells; inside blinds; dumb waiters; gas fixtures; plate, stained, common, cathedral and beveled glass; grates; steam heat; oak and pine finish; laundry fixtures and tubs; wood mantels; plumbing; ranges; speaking tubes; steam pipe covering; American tiling, and modern improvements; cost about \$3,500 each. Store and hall building for Patrick Kelley, 49 by 116 feet; three stories; pressed and common brick; marble and stone; gravel roof; galvanized iron cornice; annunciators; electric bells; inside blinds; copper work and bays; dumb waiters; gas fixtures; plate and common glass; grates; oak and pine finish; paneling and wainscoting; iron beams and columns; iron shutters; laundry fixtures; wood and slate mantels; marble work; tiling and wainscoting; plumbing; seating; stone sidewalks; galvanized iron skylights; American tiling; ventilators; furniture and modern improvements; cost about \$8,000.

Architect Frank M. Roberts: Two-story frame building for Miss J. E. Clinton; cost \$6,000. Also a large store and dwelling for Thomas Tobin; cost about \$5,500. Also \$1,000 store and dwelling for George Sherry. Also \$4,000 residence for A. M. Drake.

**Chattanooga, Tenn.**—Architects Sully, Toledano and Patton have prepared plans for a six-story hotel, to be erected by the Vicksburg Hotel Company, Vicksburg, Mississippi, 104 by 170 feet; common and pressed brick; tin roof; inside and outside blinds; copper bays; annunciators; boilers; elevators; engines; furniture; gas fixtures; common and plate glass; steam heat; hard and soft wood finish; iron beams and columns; kitchen and laundry fixtures; wood, slate and iron mantels; marble work and tiling; office fixtures; plumbing; ranges; cement sidewalks; wire work and elevator guards, etc.; cost \$100,000. Also plans for a three-story store building, 78 by 106 feet; common and pressed brick; tin roof; boilers; elevators, etc.; cost \$10,000.

Architect E. H. Hunt: Plans for remodeling court house at Winchester, Tennessee; pressed and common brick; iron beams and columns, etc.; cost \$8,000.

**Chicago, Ill.**—Architect Clarence L. Stiles has designed a gymnasium building for the Elgin National Watch Co., to be built in connection with the present hotel building at Elgin owned by the company. It will be four stories in height, with a ground area of 50 by 120 feet. First story will be of rock-faced limestone, the remaining stories of white brick trimmed with buff terra-cotta; cost about \$20,000. Also has had plans accepted for a new school building at Lake Forest. It will be two stories and basement—six rooms. Construction, pressed brick, with stone trimmings; cost \$16,000.

Architect Clinton J. Warren is preparing plans for a sixteen-story fireproof office and store building, 80 by 103 feet; to be erected by J. L. McCormick on the S. E. corner of Dearborn and Randolph streets; estimated cost \$600,000.

Architects Adler & Sullivan are preparing plans for a fine residence to be erected by I. H. Heath at 3132 Prairie avenue, to cost \$15,000.

Architect S. S. Beman has prepared plans for a four-story addition to the Studebaker Building; cost \$50,000.

Architect G. L. Harvey has prepared plans for a three-story schoolhouse, to be erected on Pearson street; stone and brick construction; steam heat, hardwood finish, etc.; cost \$15,000.

Architect F. Alschlager has prepared plans for St. Stephen's Society, Englewood, for a new church building; frame construction, with tower 120 feet high; cost \$10,000.

Architect H. W. Huehl: Plans for four-story store and flat building for Mrs. Roberts; pressed brick, brownstone and terra-cotta; cost \$60,000.

Architect C. S. Frost has made plans for two buildings for E. C. Johnson, to cost \$16,000. Also for a schoolhouse at Lake Forest to cost \$10,000.

Architects Beman & Parmenter has plans for a \$10,000 frame building, to be erected at Evanston by E. M. Fowler. Also a residence at same place for H. H. Reese.

Architect J. H. Huber: For J. B. Myer, a double store and flat building, 50 by 74 feet; pressed brick and stone; cost \$16,000. For G. Bennett, store and flat building; pressed brick; iron fronts; cost \$9,000.

Architects Treat & Foltz have prepared plans: Three-story and basement residence for E. J. Lehmann, 36 by 110 feet; exterior will be of St. Lawrence granite, and interior superbly finished. The basement will contain a billiard room, cardroom and schoolroom. The main floor will contain parlors, library, dining room and kitchen; the kitchen walls will be of glazed brick and the ceiling of marble; the house will be heated by hot water heat; cost of structure with granite barn in the rear, \$80,000. Three-story residence, 35 by 82 feet, for W. H. Hull; stone exterior; hardwood interior; hot water heat and modern conveniences; cost \$35,000. For W. C. Goudy, three three-story houses to be built on Roslyn court, Lake View; exteriors rock-faced stone; interiors hardwood finish, etc.; cost \$24,000. For N. K. Fairbank, four-story apartment building, 40 by 70 feet; cost \$24,000. Also alterations to Mr. Fairbank's residence, which will be elaborately finished; cost \$16,000. Alterations for the P. C. Hanford Oil Company's offices; cost \$10,000. Just let contracts on residence for S. N. Swan, to be erected on Calumet avenue; cost \$10,000.

Architect W. L. B. Jenney: Preparing plans for a three-story residence for Thomas A. Wright; exterior features will be a square loggia entrance with steps leading up from the side and a projecting corner bay topped out with a gable full width; construction rock-faced stone with carved trimmings; a barn will be built in the rear; cost \$25,000. Taking proposals for the foundations of the Manhattan block, to be built by C. C. Heisen, on Dearborn street, south of Van Buren, sixteen stories high. The winter garden for Douglas Park planned by Mr. Jenney, is receiving its roof; this will be a handsome structure of glass and iron, and when filled with palms, tree ferns and other tropical plants will be one of the winter sights of Chicago.

Architect C. M. Palmer has prepared plans for five four-story houses for E. S. Isham; they will be highly ornamental; fronts, stone; interiors hardwood finish; furnace heat and modern conveniences and appliances; cost \$60,000. For E. L. Brand, already commenced, a four-story store and flat building. A feature will be an entresol second story, with exceptional heavy bays; there will be four stores and forty-eight residence rooms in the structure; exterior stone with copper bays and cornices; cost \$25,000.

Architect L. B. Dixon: Three-story and basement residence, 36 by 76 feet, on Lake avenue, Bedford and artesian stone, slate roof. At one corner will be a square tower with loggia on opposite side with oriel window above. Main floor divided into reception hall, parlor, library, dining hall and kitchen, attic and billiard room. Interior finished in mahogany, cherry and oak; hot water heat, etc.; cost \$20,000. For Dr. E. W. Averill, three-story and attic store and flat building, 70 by 120 feet, pressed brick, copper bays, slate roof; cost \$25,000. Alterations and addition to Michael Reese Hospital; cost \$10,000.

Architects Wilson, Marble & Lamson: For Rev. W. Hitchcock, Evanston, two-story frame residence, 32 by 41 feet; cost \$3,000.

Architect W. A. Arnold: Plans under way for a residence for Mr. Reddington, to be built at Evanston; estimated cost \$12,000.

Architect J. J. Kounin: For J. W. Hersey, two two-story and basement dwellings, 50 by 100 feet; brownstone and marble; interior, hardwood finish; hot water heat, etc.; cost \$30,000.

Architect L. G. Halberg: Designed plans for a four-story Polyclinic Medical College, 30 by 75 feet, brick and stone, hardwood finish, steam heat and modern appliances; cost \$25,000. For Henry Hooper, four-story store and flat building, 50 by 72 feet, brick and stone, plate glass, electric work, mantels, grates,

etc.; cost \$20,000. For Professor David Swing, residence, to be built on Lake Shore Drive; cost \$25,000. Letting contracts for a four-story and basement store and flat building for A. Wisner; blue Bedford stone and pressed brick fronts; cost about \$20,000. Preparing plans for a four-story and basement apartment building to be built on Thirty-third street near Cottage Grove avenue; cost about \$8,000. Taking figures on a number of cottages, to be erected near Pullman by L. W. Yaggy, Esq.

Architects Flanders & Zimmerman have plans under way for an \$80,000 office building, to be erected in Kansas City by Husted & Co. Also plans for addition to Douglas Club House, consisting of ballroom, dressing rooms, etc.; cost \$10,000.

Architect Ostling Bros.: For A. Schoenbeck, four-story store and flat building, 26 by 94 feet; stone front, hard and soft wood interior, copper bays, mantels, grates, etc.; cost \$20,000.

Architect William Thomas: For George B. Goodall, seven-story apartment house, 105 by 125 feet, stone, brick and iron construction, passenger elevators, dumb waiters, marble work, mantels, grates, hot water heat; cost \$180,000. For ex-Mayor Roche, two three-story and cellar houses, 18 by 64 feet each, pressed brick and stone fronts, hardwood finish, hot air heat, mantels and modern conveniences; cost \$13,000. For R. D. Huszagh, three-story and cellar dwelling, 30 by 63 feet; Bedford stone front; cost \$12,000.

Architect Greg. Vigeant: For First Presbyterian Society, Hyde Park, church edifice; cost \$5,000. For W. H. Aldrich, six-story bakery, 100 by 100 feet; cost \$50,000. For Town of Lake, two-story school building, 68 by 120 feet; cost \$35,000. For A. Christian, four-story store and flat building, 60 by 70 feet; cost \$20,000. Three-story college building at Bourboncise, 100 by 100 feet; cost \$30,000. For W. E. Clow, Buena Park, residence, 37 by 74 feet; cost \$20,000. Glencoe Congregational Society, church building and manse; cost \$5,000. Alterations on First Presbyterian Church, Fifty-third street, Hyde Park; cost \$35,000. Also alterations on R. Stewart's residence; cost \$6,000.

Architect F. L. Lively: For J. S. Thompson and R. S. Mott, real estate and auction pavilion, 54 by 125 feet, to be built on North and Kinne avenues; will contain store, restaurant, etc.; frame construction; interior finish, Georgia pine; cost \$5,000.

Architect W. H. Drake: For A. E. Guild, Jr., two three-story houses, stone fronts, hardwood finish and modern improvements. For F. E. Spooner, four-story warehouse, 50 by 60 feet, brick and stone, plate glass, electric work, etc.; cost \$26,000.

Architects Burling & Whitehouse: Nine-story building for Kansas City, Mo. It will be located at the intersection of Delaware, Seventh and Wall streets, with frontages of 179, 133 and 177 feet, respectively. It will be built of brick, granite, and terra-cotta, with interior construction of steel, thoroughly fireproof. The first story will be divided into stores and banks, and the remaining stories will contain about 350 offices. The building will be appointed in a first-class manner throughout; cost \$800,000.

Architect J. A. Miller: For Dr. T. C. Duncan, three-story flat building, 60 by 80 feet; cost \$20,000.

Furst & Rudolph: For Charles Kehl, residence; cost \$10,000. For A. Wisner, store and flat building, 71 by 66 feet; cost \$25,000.

**Cincinnati, Ohio.**—Reported by Lawrence Mendenhall:

The situation reported in last issue remains unchanged, trade being only moderately active.

Our Cincinnati Sketch Club is doing most excellent work, and can feel proud over the progress made.

In June, five of the members entered the tenement house competition. The sketches submitted showed careful care and study, and in shooting, the "young ideas" made center shots.

The judges, after a critical examination, awarded the first prize of \$10 to Mr. D. Davis, in the office of William Martin Aiken; and the second prize of \$5 to Mr. M. Heister, employed in the office of Lucien Plympton. The architects mentioned are careful teachers, and their draftsmen showed the imprint of their genius.

The architects are not very busy, but still are not complaining.

Messrs. Crapsey & Brown have the following on their boards: For the Munco Bath Institute, a bath-house of brick, steam heat, electric bells, bath fixtures, grates, tin roof, etc.; cost \$6,000. For Mr. Timothy Hays, a store and flat building, three stories, brick, grates, plumbing, laundry fixtures, tin roof, etc.; cost \$8,000. Also a double house for Mr. George Gibson, Esq., at Elsem (city) of frame, slate roof, pine finish, wood mantels, plate glass, etc.; cost \$4,000.

S. W. Rogers reports: For the Washington Fire Ins. Co., city, a nine-stories brick building, stone trimmings, terra-cotta, elevators, marble hall; size 24 by 100 feet; cost \$30,000. For Mrs. Sarah A. Rogers, a pressed brick dwelling, two and one-half stories, twelve rooms, wood mantels, laundry, tin and slate roof; cost \$6,000.

William Schuberth, Jr., city, has prepared plans for a factory for the Cincinnati Spring Co., of corrugated iron; cost \$4,500.

W. W. Franklin reports: For Charles Hefer, Esq., a residence, two-and-a-half stories high; frame and stone; slate roof; stained glass; wood mantels, etc.; cost \$10,000.

For Abe Steinar, Jr., a residence, two stories; frame and stone; twelve rooms; slate roof; laundry fixtures; cost \$7,500.

Adam Bast reports: For Henry Wagner, city, a brick residence, two stories; wood mantels; slate roof; blinds, etc.; cost \$4,000.

W. W. Franklin: For Messrs. McNamara & Conner, a series of eight dwellings; of brick; two-and-a-half stories; furnaces; stained glass; slate roof; mantels; cost \$32,000.

Emil F. Baude reports: For S. H. Wilder, city, a three-story flat building; tin roof; grates; wood mantels, etc.; cost \$15,000.

Joseph Steinkamp reports: For Thomas Emery's Sons, city, a store and flat building, four stories; brick, with stone trimmings; steam; tin roof; inside blinds, etc.; cost \$12,000.

**Cleveland, Ohio.**—Architect S. R. Badgley: For G. L. Quayle, one and a half story residence, 34 by 56 feet; frame, slate roof, hardwood finish; plate and stained glass, mantels, grates, electric work, bath and laundry fixtures, etc.; cost \$7,000.

Architect Van DeVelde: For James Rockford, two and a half story dwelling, 44 by 30 feet; frame, slate roof, stained and plate glass, wood mantels; furnace and hot water heat, bath and laundry and all modern appliances; cost \$4,500.

Architect J. F. Bruggeman: Store and tenement building, 23 by 63 feet; frame, shingle roof, bathroom outfit, softwood finish; cost \$3,000.

Architects Coburn & Barnum: For Mrs. F. C. Vail, two-story alterations to dwelling; brick, stone and frame, hardwood finish, panels, wainscoting, bay windows, etc.; cost \$4,500.

Architect A. Mittermüller: For L. Schlather, block of three two-story dwellings, 30 by 62 feet; common pressed brick and stone, slate roof, plate glass, grates, wood mantels, gas, hot water heat, hardwood finish, and modern in all respects; cost \$12,000.

Architects Cramer & Fuyman: For R. Esieman, residence, frame, slate roof, plate glass, hard and soft wood finish, etc.; cost \$3,000.

**Detroit, Mich.**—The present condition, quite active; new work, rather quiet; outlook, fair; the permits issued for June aggregated 306, of which 238 were for new structures and 68 for alterations; total estimated cost \$652,275. The following represents the work planned and let during the month:

Architect A. C. Varney: For C. W. Morse, two-story dwelling with barn, brick with stone trimmings; cost \$8,500. For E. J. Lynn, three two-story dwellings, 38 by 70 feet, brick with stone trimmings, slate roof; cost \$32,000. For Dr. C. J. Lundy, three-story office block, 23 by 74 feet, brick and stone, gravel roof; cost \$7,000.

J. W. Munro, two-story dwelling, 28 by 65 feet, brick and stone, slate roof; cost \$5,000. H. M. Kettle, two-story dwelling, brick and stone, slate roof; cost \$6,000. W. A. Avery, two-story dwelling, 48 by 80 feet, brick and stone, slate roof; cost \$15,000. Detroit C. R. W. Co., two two-story car stables, 76 by 245 feet and 120 by 381 feet, brick, slate roof; cost \$50,000. Patrick Dee, three-story double dwelling, 50 by 68 feet, brick and stone, gravel roof; cost \$8,000. M. P. Lynch, two-story dwelling, 40 by 55 feet, brick and stone, gravel roof; cost \$4,200. L. Scheible, two-story store, 24 by 65 feet, brick and stone, gravel roof; cost



\$4,000. T. F. Fuller, two-story carpet cleaning works, 33 by 110 feet, brick and stone, iron roof; cost \$5,000. H. W. Holcomb, two-story dwelling, 32 by 54 feet, brick and stone, slate roof; cost \$5,500. Three-story dwelling, brick and stone; cost \$5,000. Two-story dwelling, brick and stone, slate roof; cost \$5,000. Block of three three-story stores, 66 by 60 feet, brick and stone, gravel roof; cost \$12,000.

E. A. Walshe & Son, three two-story stores, 76 by 60 feet, brick and stone, gravel roof; cost \$10,000.

Architects Donaldson & Meir: For the Moffit estate, additions and alterations to Moffit Block, 137 by 142 feet, stone and iron; cost \$80,000.

Architects Hess & Roseman: For Mrs. C. J. Atterbury, addition and alterations to dwelling, brick, slate roof; cost \$6,000. For Campan estate, addition to hotel, brick, gravel roof; cost \$10,000.

Architect P. Dederichs: For Henry Heck & Son, three two-story dwellings, frame, shingle roof; cost \$5,340. For Sacred Heart Parish (German), three-story schoolhouse, 71 by 81 feet, brick and stone, slate roof; cost \$19,000. For St. Joseph's parish, three-story schoolhouse, 64 by 70 feet, brick and stone, slate roof; cost \$17,000. For Schulte & Hauser, two-story double store, 49 by 75 feet, brick and stone, gravel roof; cost \$7,500. For W. H. Wells, three-story dwelling, 40 by 80 feet, brick and stone, tile roof; cost \$25,000.

Architects Mason & Rice: For First Presbyterian Society, church building, 80 by 160 feet, stone, slate roof; cost \$110,000.

**Duluth, Minn.**—The proposed new jail will be built this summer; it will cost \$50,000. The Lincoln school building is rapidly being pushed toward completion; its interior is to be of the most approved and modern style. Palmer & Hall are the architects. The secretary of the board of education has received instructions to advertise for plans and specifications for a twelve-room school building, to cost not less than \$40,000. F. E. Kenedy and C. G. Traphagan have both asked for bids on new and handsome residences. D. Ogilvie has the foundation in for his large brick and stone row on Fourth street, and Sixth avenue west. E. E. Burley, will commence work this week on a two-story store and office building.

F. B. Daugherty is having plans drawn for a new business block. Richardson & White have the contract for building the Baptist church here and will commence work at once. The secretary of the board of education was authorized to advertise for plans and specifications for the new school at Endion, to cost \$40,000. William O'Brien, of Taylor's Falls, will erect a two-story building on Central avenue. The foundations are now in for the large brick and stone row of D. Ogilvie. Chambers & Campbell have received the contract for putting up E. C. Burley's handsome building on Central avenue.

**Galveston, Tex.**—Architect N. J. Clayton has prepared plans for a Catholic church to be built at Broadway and Thirteenth street; cost \$50,000. Also plans for two frame residences for Messrs. J. Owens and J. D. Sawyer, to cost \$7,000 each.

**Grand Rapids, Mich.**—Architect W. G. Robinson has prepared plans for a five-story business block, to be built by F. Hoellert; cost \$30,000. Also plans for a \$10,000 club house for the A. O. H. brotherhood.

Architect S. J. Osgood: For A. Stegeman, Allegan, Mich., two-story business block, 50 by 100 feet; common, pressed and ornamental brick and stone; composition roof; common and plate glass; iron shutters; plumbing and gas fixtures, etc.; cost \$10,000. For Masonic Building Association of Cadillac, Mich., three-story store and office building, 75 by 110 feet; common and pressed brick; tin and composition roof; galvanized iron cornice; electric lighting; steam heat and modern appliances; cost \$25,000.

**Hutchinson, Kan.**—Architect A. B. Howatt: For Hoffman & Co., three two-story residences; frame; shingle roof; hard and soft wood finish; wood mantels; stained and plate glass; marble and tile work; electric lighting; bathroom and laundry outfit, and other modern improvements. For J. F. Greenlee, two-story residence, 55 by 38 feet; frame; shingle roof; marble, wood and slate mantels; bath and laundry outfit; plate and stained glass; dumb waiters; gas and incandescent lighting; electric work; softwood finish; cost \$8,000.

**Little Rock, Ark.**—Architect C. Thompson has prepared plans for a three-story brick and stone building, 50 by 140 feet, for Mrs. M. Daimid; cost \$20,000.

Architect F. J. Rickon: For I. Reenschaupt, two-story brick and stone building, 50 by 70 feet; cost \$5,000.

Architect T. Harding: For School Board, two-story brick schoolhouse; cost \$30,000.

**McKeesport, Pa.**—Plans for the new church of the Second M. E. Congregation are in the hands of the committee. It will be a two-story brick building, 60 by 80 feet, and it will have a lecture and an audience room.

Plans and specifications for the works of the Novelty Steel Wheel Company's plant, to be erected at Bissell, will soon be submitted for bids for building the plant.

A. W. Smith is receiving bids for the building of a block of brick houses in the Second ward.

The Monongahela Furnace Company, capital \$1,000,000, has been organized and will erect large furnaces in the Third ward.

Captain William Dunshee has bought the lot on corner of Fifth avenue and Ringgold street, for \$20,000 cash. It is understood that the erection of a fine five-story pressed brick building on the lot will be commenced shortly for the Bank of McKeesport.

**Minneapolis, Minn.**—Building permits issued during June: George F. Bollier, dwelling, \$3,500; N. G. Leighton, dwelling, \$8,500; W. N. Read, dwelling, \$6,000; W. R. Griffith, dwelling, \$3,000; Lucy R. Steele, dwelling, \$4,500; R. Fleming, dwelling, \$4,000; Hansen & Blomquist, store, \$5,000; A. W. Barber, dwelling, \$3,000; Emil L. Hogberg, dwelling, \$3,000; B. Cooper, brick tenement row, \$25,000; B. Cooper, dwelling, \$6,000; J. A. Wright, chapel, \$8,000; Westminster church, chapel, \$8,000; E. M. Runyan, dwelling, \$5,000; Cate & Packard, dwelling, \$4,000; S. A. & E. W. Wheelock, dwelling, \$3,000; F. E. Crew, dwelling, \$7,500; R. Pratt, dwelling, \$4,500; S. M. Blanchard, two dwellings, \$6,000; W. P. Burnett, apartment house, \$20,000; E. T. Sykes, office building, \$70,000; William Miller, dwelling, \$4,500; L. H. Selden, dwelling, \$10,000; W. J. Hamilton, dwelling, \$6,000; Emma Record, dwelling, \$4,000; T. P. Healey, two-story frame dwelling, \$5,000; E. R. Francis, two-story frame dwelling, \$4,500; Dr. A. Beery, \$3,500; L. E. Quist, two-story frame dwelling, \$3,000; W. J. Hamilton, two-story frame dwelling, \$3,000; A. A. Pond & E. Drew, brick tenement row, \$40,000; James Best, three-story brick veneer store and flats, \$3,500; E. D. Greenfield, two two-story frame dwellings, \$8,000; Ingham Bros., two two-story frame dwellings, \$6,000; D. B. Lyons, double two-story frame dwelling, \$3,500; Judge Torrence, double two-story brick store and flats, \$6,500; David Smith, four two-story frame dwellings, \$30,000; Angeline M. Sprague, a two-story frame dwelling, \$30,000; W. G. Bowe, two-story frame dwelling, \$3,000; E. Baker, two-story brick store, \$7,000.

**Mobile, Ala.**—Architect James F. Hutchinson reports the following buildings under way: For B. B. Boone, two-story frame, 45 by 72 feet; cost \$6,500. For Jas. Prendergast, one-story frame, 30 by 48 feet; cost \$2,500. For Alabama Building Association, two one-story frames, 35 by 53 feet; cost \$4,800. For Geo. Fink, one-story frame, 32 by 51 feet; cost \$2,600. For Jas. H. Hayes, one-story frame, 40 by 52 feet; cost \$3,000. For J. E. Hooper, two-story frame, 48 by 72 feet; cost \$4,500. For J. J. Godard, one-story frame, 32 by 50 feet; cost \$2,250. For M. V. Smith, two-story frame, 42 by 64 feet; cost \$4,900. For G. R. Dupree, one-story frame, 30 by 49 feet; cost \$2,000. For Miss M. McCowan, one-story frame, 36 by 50 feet; cost \$3,000. For Robert Wilson, one-story frame, 37 by 45 feet; cost \$2,750. For Henry Barnwell, one-story frame, 20 by 36 feet; cost \$1,800. For S. W. Parbo, one-story frame, 22 by 38 feet; cost \$1,800. For S. G. Stone, one-story frame, 36 by 51 feet; cost \$2,800. For A. G. Levy, two one-story frames, 22 by 45 feet; cost \$3,000. For A. R. Mixon, one-story frame, 45 by 60 feet; cost \$4,000. Jas. K. Glennon, one-story frame, 30 by 42 feet; cost \$2,000. For Mrs. E. Quinn, three-story brick, 30 by 52 feet; cost \$6,000. For J. G. New, one-story frame, 36 by 48 feet; cost \$2,000. For T. J. Burns, two-story frame, 30 by 42 feet; cost \$2,650. For M. J. Vickers, one-story frame, 36 by 49 feet; cost \$2,500. For D. Gunion, one-story frame, 44 by 86 feet; cost \$4,600. For J. F. Powers, one-story frame, 30 by 49 feet; cost \$2,000. For Mrs. J. Williams, two-

story frame, 41 by 46 feet; cost \$3,100. For G. B. Shawhan, one-story frame, 36 by 53 feet; cost \$6,000. For D. Lamborn, one-story frame, 36 by 41 feet; cost \$2,000. For Jas. Lyons, one-story frame, 22 by 40 feet; cost \$1,100. For Dr. D. E. Smith, one-story frame, 21 by 39 feet; cost \$1,800.

**Omaha, Neb.**—Architect Sidney Smith reports: For J. T. Pierce, Yankton, D. T., three-story store and office building, 50 by 110 feet; cost \$30,000. For P. E. Wilcox, same place, three-story store and office building, 50 by 88 feet; cost \$20,000. For Beaver Head county, Dillon, M. T., three-story brick and stone court house, 64 by 90 feet; cost \$40,000. For Park County, Livingston, M. T., three-story brick and stone court house, 60 by 92 feet; cost \$45,000. For George Bogart, Shenandoah, Iowa, two-story residence, 36 by 60 feet; cost \$8,000. For J. Richards, Clarendon, Neb., two-story store and residence, frame, 36 by 54 feet; cost \$6,000. For J. P. Noonan, Omaha, Neb., three-story store and flats; cost \$30,000.

**Peoria, Ill.**—Architects Milner, McMurray & Davis: For Transcript Company, three-story and basement building, 40 by 71 feet; pressed, common and ornamental brick, terra-cotta, granite, marble and brownstone; tin and tile roof; copper cornice; iron columns and beams; corrugated and architectural iron work; electric and pneumatic work; incandescent lighting; elevators; steam heat; plate glass; wood mantels; hardwood and pine finish, etc.; cost \$25,000.

**Pittsburgh, Pa.**—Architect J. Stillburg has prepared plans for a four-story brick building, to be erected on Ninth street, by Charles Sanders.

Architect F. C. Sauer has prepared plans for two three-story brick dwellings, to be built by J. Dimling, at Oakland. Also for remodeling residence of A. W. Cadman, at Edgewood station. Also for a two-story brick dwelling for A. P. Miller, to cost \$4,000. Also for C. A. Wingerson, of Allegheny City, a three-story store and dwelling, to cost \$8,200. Also brick residence for W. G. Bancker, to cost \$5,200. Also three brick dwellings for W. Loeffler; cost \$18,000. Also three-story brick dwelling for P. Weber; cost \$5,600.

Architect J. P. Bailey has completed plans for a M. E. church to be erected at McKeesport, Pennsylvania, at a cost of \$20,000.

Architect J. H. Giles has prepared plans for a seven-story apartment house, 50 by 160 feet, to be erected on Williams street, by Black & Baird; cost \$200,000.

Architect J. P. Bailey: For A. J. Pentecost, of Allegheny City, frame residence; cost \$8,000. For R. P. Church, brick building; cost \$18,000.

Architects Longfellow, Alden & Harlow: For H. G. Brown, two three-story dwellings; stone and wood. For Miss Rosenbach, Allegheny City, three-story, pressed brick front residence. For Miss Morgan, Washington, Pennsylvania, three-story brick residence. Engaged on plans for McKeesport Bank building, to cost \$40,000.

Architect T. C. McKee has made plans for a brick and stone residence for A. C. Ellis. Also for a store building and dwelling houses for J. Hays, to cost \$20,000.

Architect H. Moser is preparing plans for a schoolhouse for the Jeanette Catholic church; the structure will be of brick and stone.

Architect James T. Steen is building six handsome brick dwellings on Duquesne Heights; they will be provided with bathrooms and modern conveniences. Has also prepared plans for a modern residence for C. B. Follansbee, to be erected on California avenue. Work has been commenced on the Western University, for which he completed the plans over a month ago; the cost of the buildings will approximate \$70,000.

Architect J. N. Campbell: For C. H. Stark, Greenville, Pennsylvania, four three-story brick houses, 65 by 100 feet; cost \$19,000. For J. McCreary, Greensburg, three-story residence. For I. O. O. F., Homestead, Pennsylvania, three-story hall building.

**Port Huron, Mich.**—Architect John C. Kammer: For S. Moore, three-story store and office building, 65 by 100 feet; pressed and common and ornamental brick; stone and terra-cotta; tin roof; iron beams and columns; gas fixtures; plate and beveled and common glass; steam heat; pine finish; plumbing; prismatic sidewalk; lights and modern improvements; cost about \$25,000.

**St. Louis, Mo.**—Architect Isaac Taylor: Plans for the Legget Building, to be erected on Clark avenue; cost \$15,000. For Allen heirs, Meacham Building, to be erected on Fourth and Ohio streets; cost \$60,000.

Architect John Haynes: For the new Sodality Hall on Grand avenue; cost \$25,000.

Architects Annan & Sons have made several changes in plans for the new Boatman's Bank Building, which will make it one of the most complete and imposing edifices in the country; the estimated cost is \$150,000.

**St. Paul, Minn.**—Architect C. B. Seaton, store and flat building for A. C. Woodruff, of Merriam Park, 60 by 122 feet, two stories; common, pressed, ornamental and enameled brick; gravel and composition roof, bathroom outfit, electric bells, gas fixtures, iron beams and store fronts, kitchen fixtures, wood mantels, marble work and tiling, prismatic sidewalk lights, stone sidewalks, galvanized iron skylights, store fixtures, counters and shelving, etc.; cost \$20,000. Also store and office building at Dayton Bluff, for a syndicate, 35 by 120 feet, three stories, common, pressed, ornamental and enameled brick and terra-cotta, tin roof, iron beams and columns and store fronts, bathroom outfits, electric bells, copper and galvanized iron cornice, gas fixtures, common plate, stained, cut and beveled glass, grates, steam heat, hardwood finish, mantels, kitchen fixtures, prismatic sidewalk lights, stone sidewalks, galvanized iron skylights, speaking tubes, store fixtures, counters and shelving, American tiling, etc.; cost \$18,000. Store and flat building for William L. Crosby, of Merriam Park, 25 by 70 feet, two stories, common and pressed brick and terra-cotta, tin roof, bathroom outfit, galvanized iron cornice, common, stained and cathedral glass, iron beams and columns, gas fixtures, hard and soft wood finish, plumbing, stone sidewalks, prismatic sidewalk lights, galvanized iron skylights, speaking tubes, store fixtures, counters and shelving, wood mantels, etc.; cost \$4,200. Parsonage for the M. E. Church, of Merriam Park, 36 by 28 feet, two stories, frame, shingle roof, bathroom outfit, gas fixtures, common, plate and stained glass, grates, hard and soft wood finish, wood mantels, plumbing, etc.; it will cost about \$2,800. For H. M. Crosby, remodeling the theater of common and pressed brick, metal roof, galvanized iron cornice, gas fixtures and fitting, iron stairs, opera chairs, etc.; cost \$2,500.

Building permits issued during June: C. S. Pennell, dwelling, \$5,000; J. M. Lund, dwelling, \$5,000; F. A. Harlow, dwelling, \$5,000; G. M. Deeks, dwelling, \$5,000; Mrs. A. M. Smith, dwelling, \$5,000; Board of Education, schoolhouse, \$30,000; Board of Education, schoolhouse, \$18,000; E. C. Long, dwelling, \$3,000; E. C. Long, stable, \$5,000; R. O. Strong, dwelling, \$5,000; E. H. Murray, dwelling, \$6,000; H. J. Peters, stores and dwellings, \$13,000; J. J. Parker, two dwellings, \$10,000; P. Gadbois, dwelling, \$5,000; A. H. Rogers, brick building, \$10,000; Board of Education, schoolhouse, \$9,000; C. Shields, dwelling, \$5,000; T. U'Ren, dwelling, \$7,000; P. V. Dwyer, block of stores and tenements, \$70,000; C. T. Miller, dwelling, \$26,000; P. Norris, dwelling, \$6,000; D. Moreland, dwelling, \$5,000; William Reid, dwelling, \$5,000; P. Butler, brick store, \$5,000; R. Quayle, dwelling, \$5,000; William Rhodes, dwelling, \$12,000; C. F. Arrol, apartment house, \$20,000; F. Brandt, block and dwellings, \$10,000; Trustees of St. Luke's Hospital, basement for hospital, \$21,000; L. T. Chamberlin, dwelling, \$5,000; Annie T. Hofer, dwelling, \$5,000; Clara Woolworth, block of stores and dwellings, \$30,000; C. Schott, dwelling, \$5,000; W. W. Thomas, dwelling, \$5,000; W. W. Thomas, dwelling, \$5,000; Nellie Kingsley, dwelling, \$5,000; D. B. Merrill block and dwellings, \$10,000; C. Dougherty, dwelling, \$5,000; Little Sisters of the Poor, three-story brick block, \$50,000; William Dawson, four-story brick addition, \$10,000; A. C. Wellington, two-story frame dwelling, \$2,500; Board of Education, two-story brick school, \$45,000; E. Mehl, two-story frame dwelling, \$12,000; Mrs. D. Henderson, two-story frame dwelling, \$5,000; G. Reis, two-story brick dwelling, \$25,000; W. J. Cutler, five-story brick warehouse, \$110,000; C. Lachance, three-story brick block, \$12,000; J. D. Cudworth, two-story frame dwelling, \$5,000; Board of Education, heating plants for six school buildings, namely, Monroe, Gorman, Jackson, Sibley, Webster and Cleveland, \$22,318; Johnson & Sorenson, two-story frame dwelling, \$5,000.

**West Superior, Wis.**—Dr. Conon will build a \$15,000 residence on Bay street, and Martin Pattison will build a house, to cost \$30,000. The Methodist and Baptist church buildings are well under way. H. F. Kendall will build a \$5,000 residence on Ogden avenue.









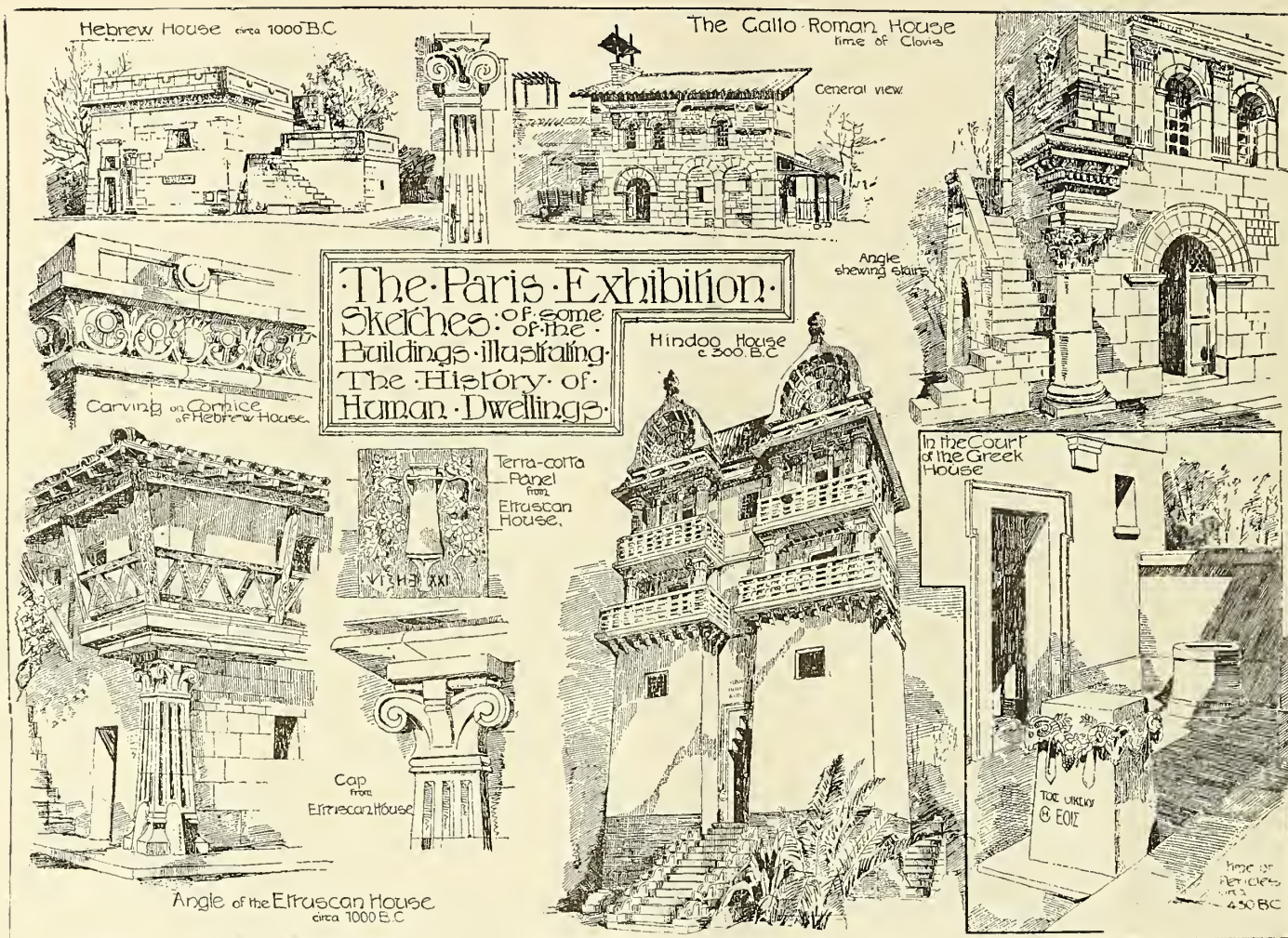
RENAISSANCE PANEL. (See Paper "Wood Carving.")

THEODORE O. FRAENKEL, DES. AND DEL. CHICAGO.

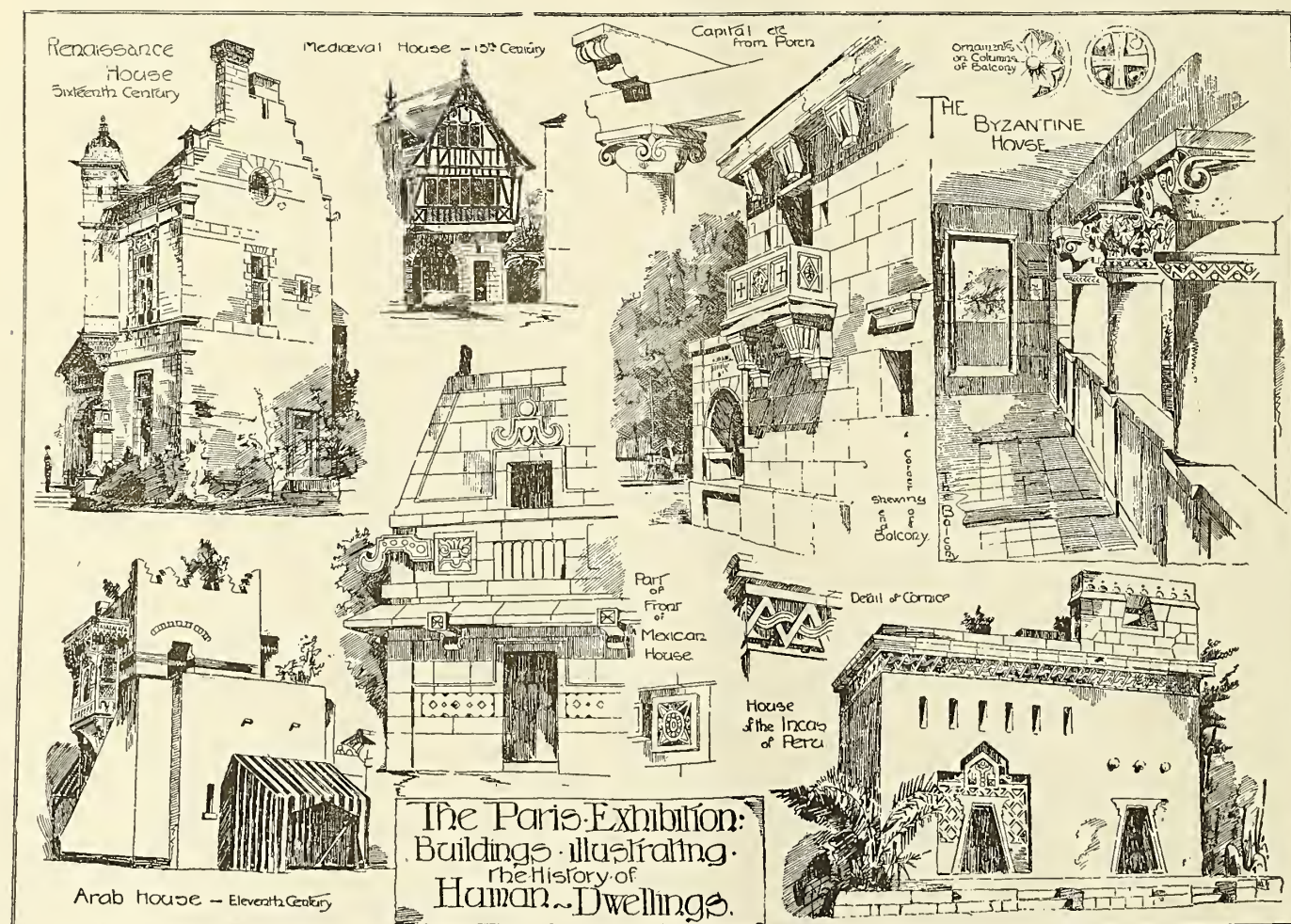






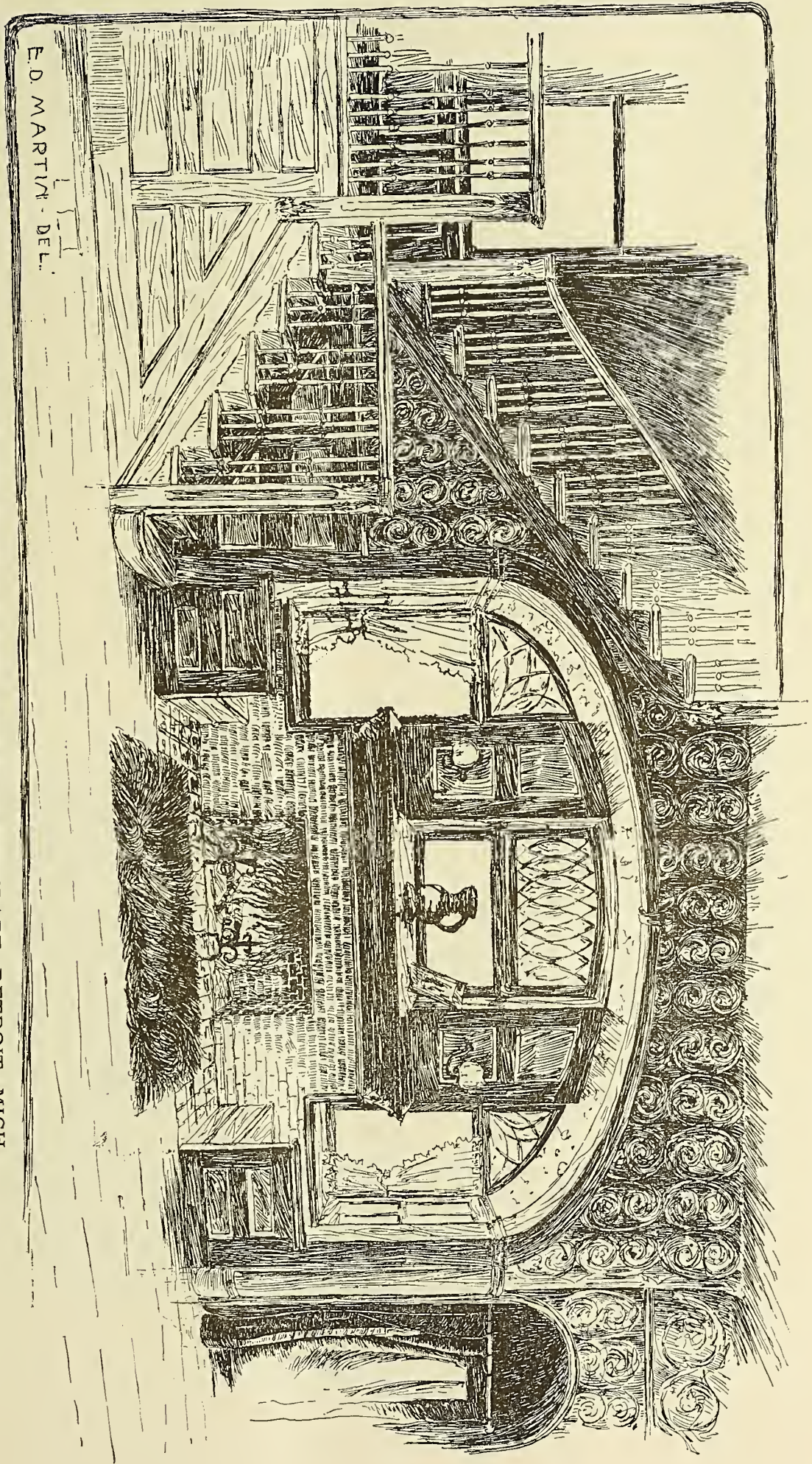


THE BUILDER, LONDON.



THE BUILDER, LONDON.





FIREPLACE IN RESIDENCE OF MRS. F. B. STANDARD, DETROIT, MICH.

IRVING K. POND AND ALLEN B. POND, ARCHITECTS, CHICAGO.



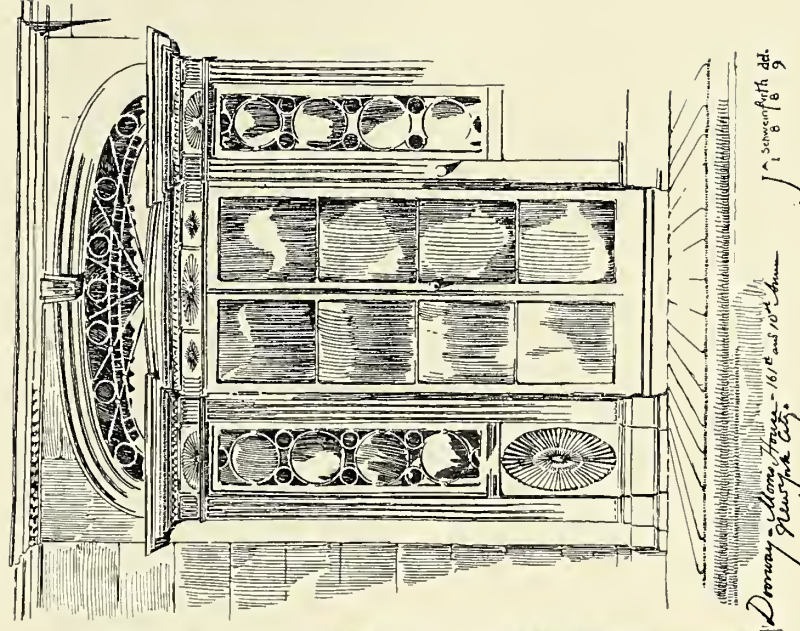
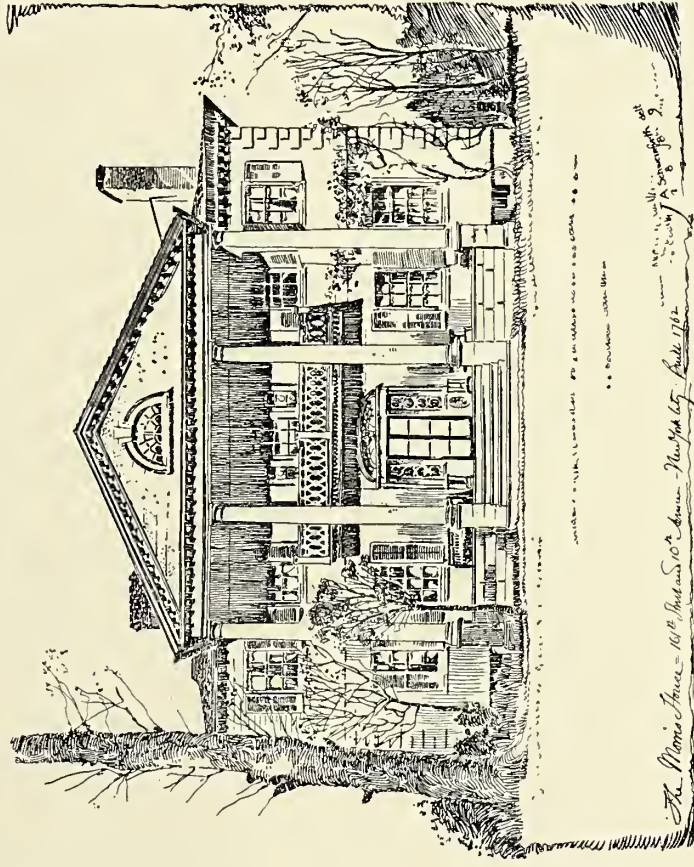
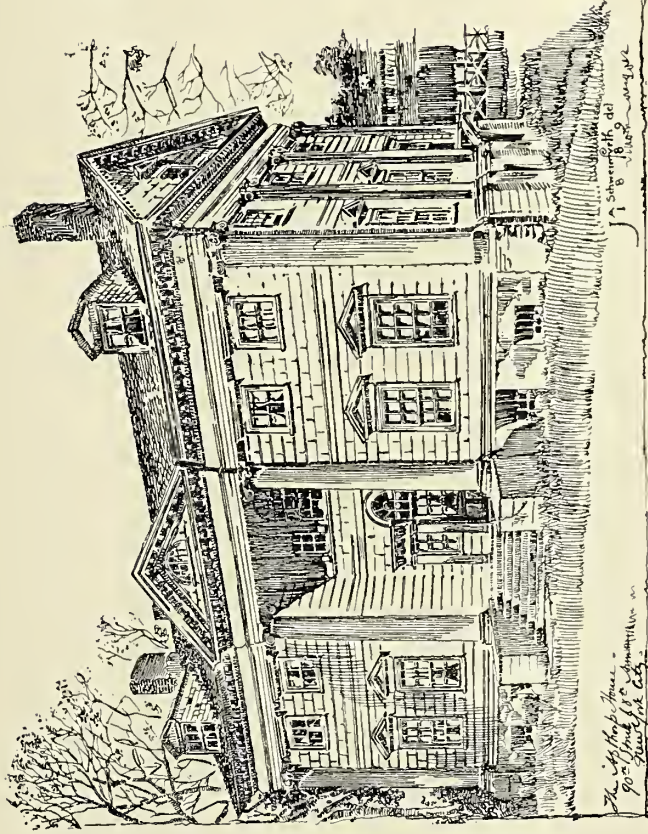




# NEW YORK SKETCHES.

· NO · I ·

## · COLONIAL WORK ·



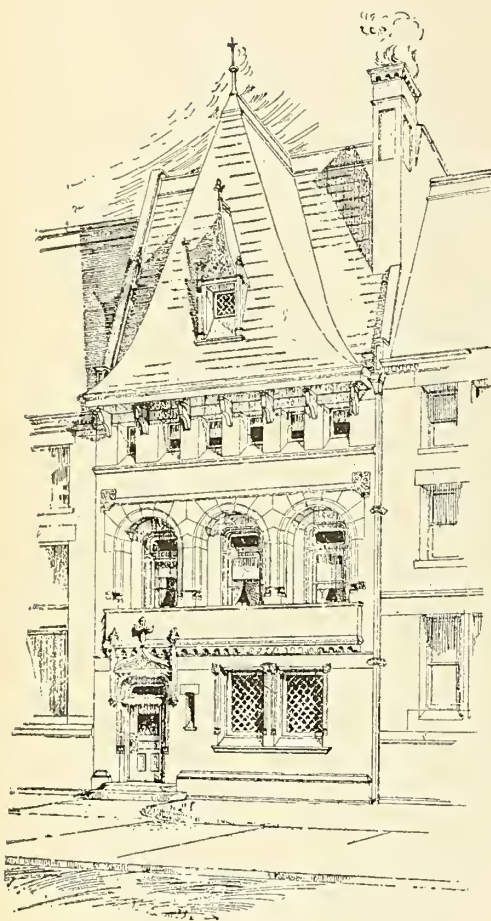




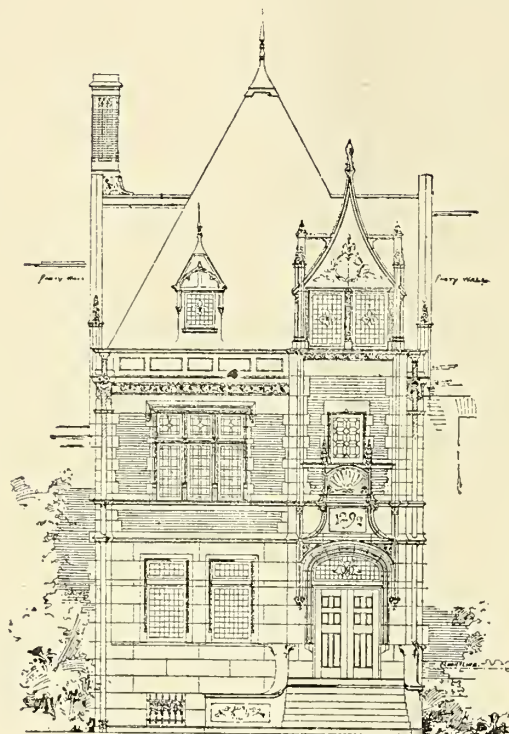




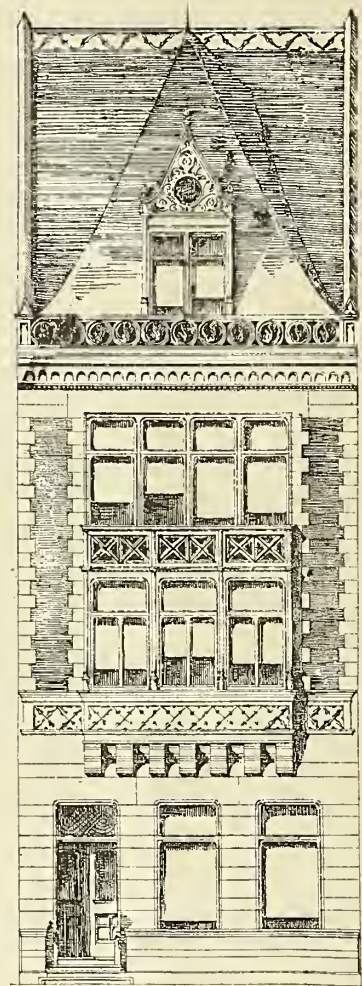




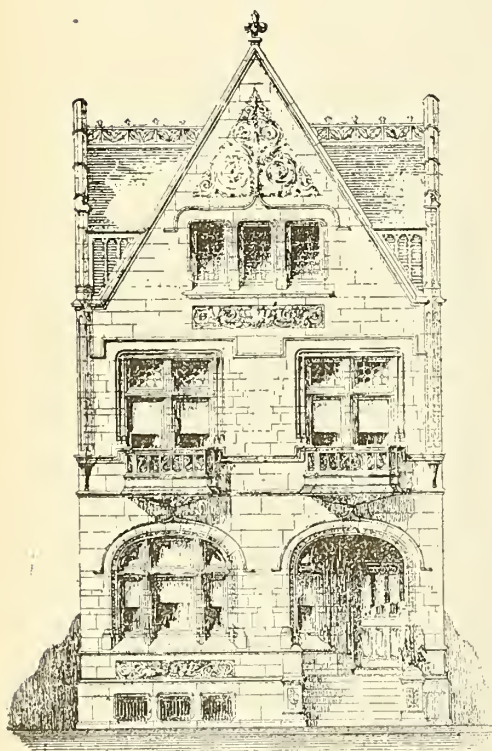
FIRST PLACE, A. C. BERRY.



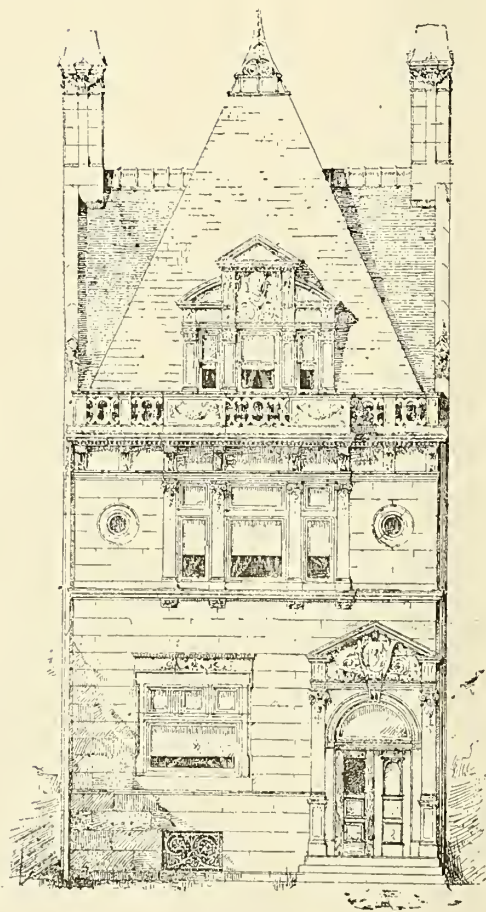
SECOND PLACE, A. HEUN.



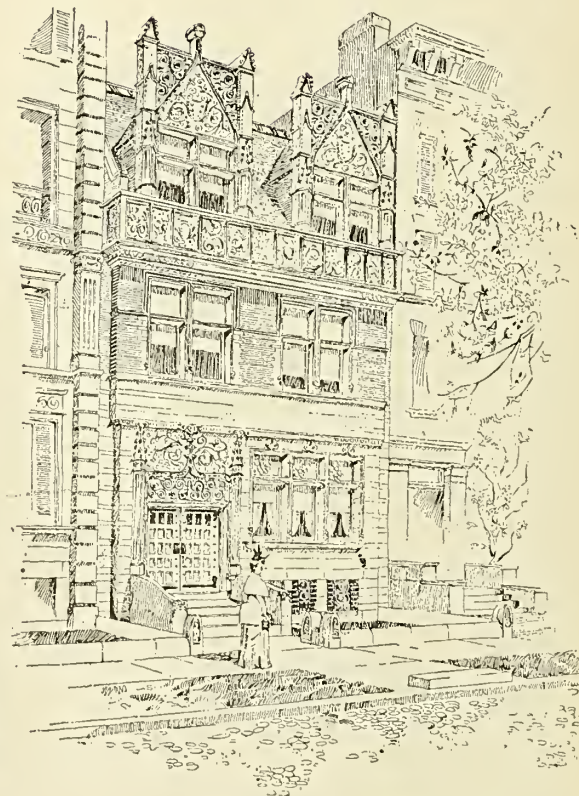
THIRD PLACE, A. R. NIEMZ.



MENTIONED, F. PARMENTIER.



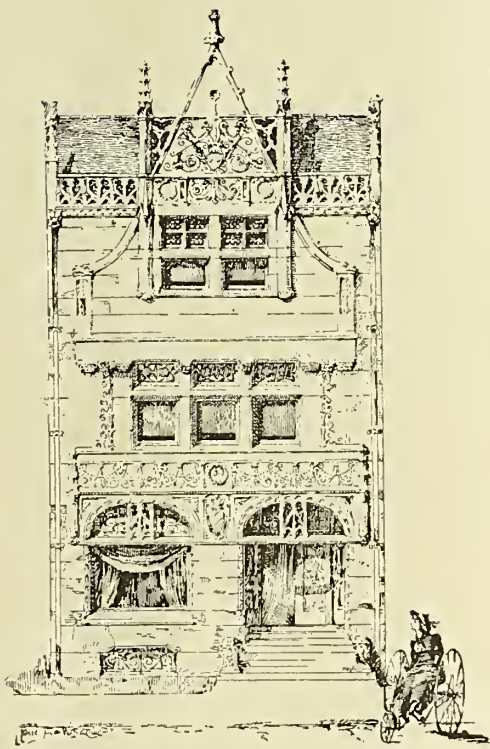
BY O. C. CHRISTIAN.



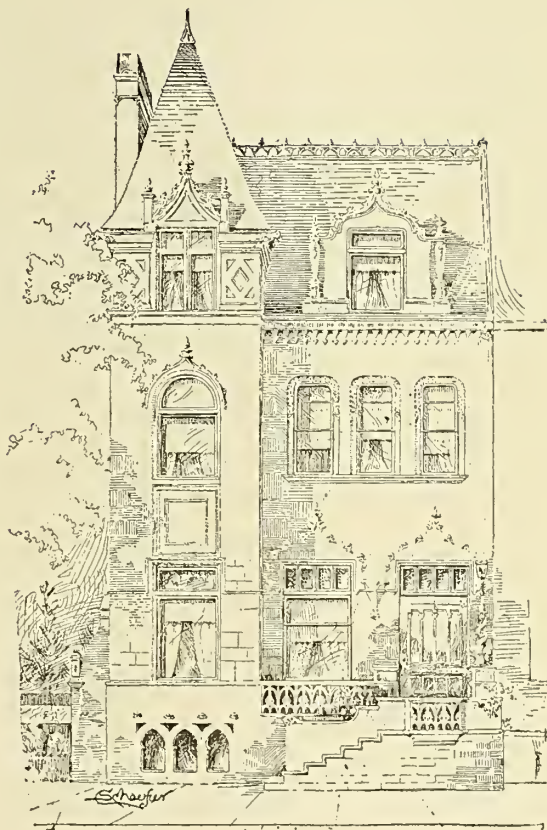
MENTIONED, R. A. DENEL.

CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION FOR 25 FT. FRONT IN FRENCH CHATEAU STYLE.





By C. A. KESSELL.



By C. B. SCHAEFER.

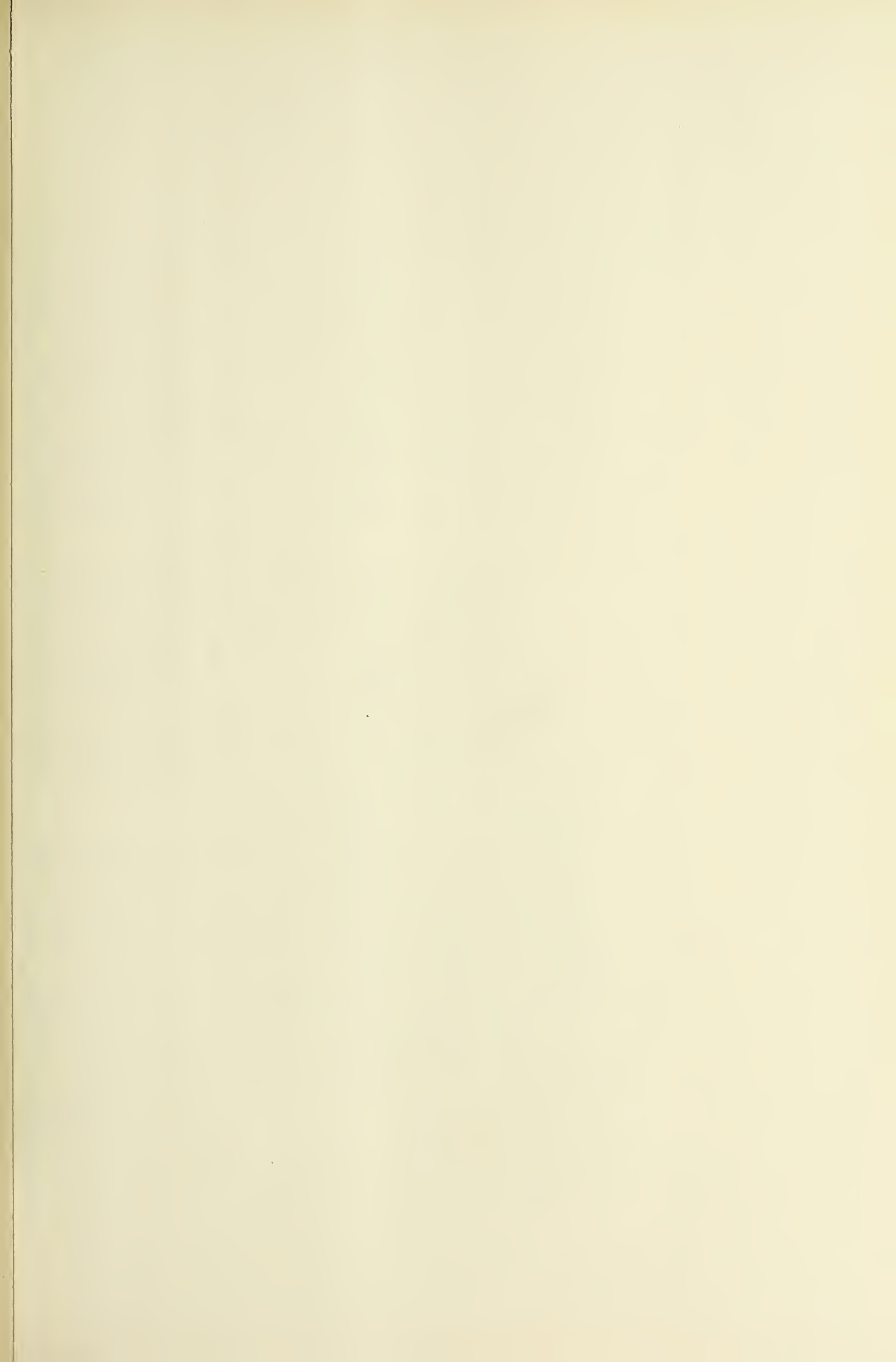


DESIGN FOR STABLE.

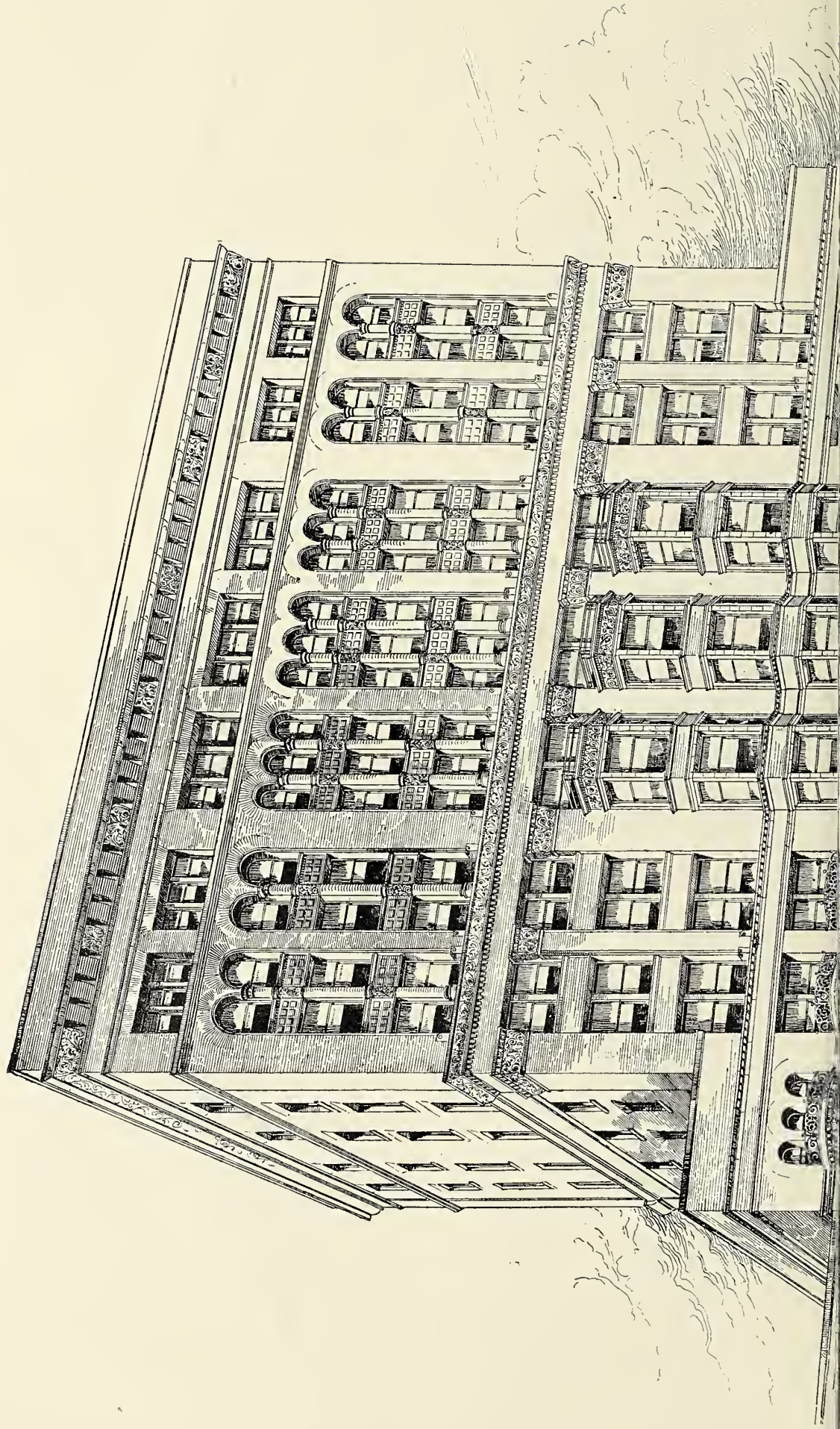




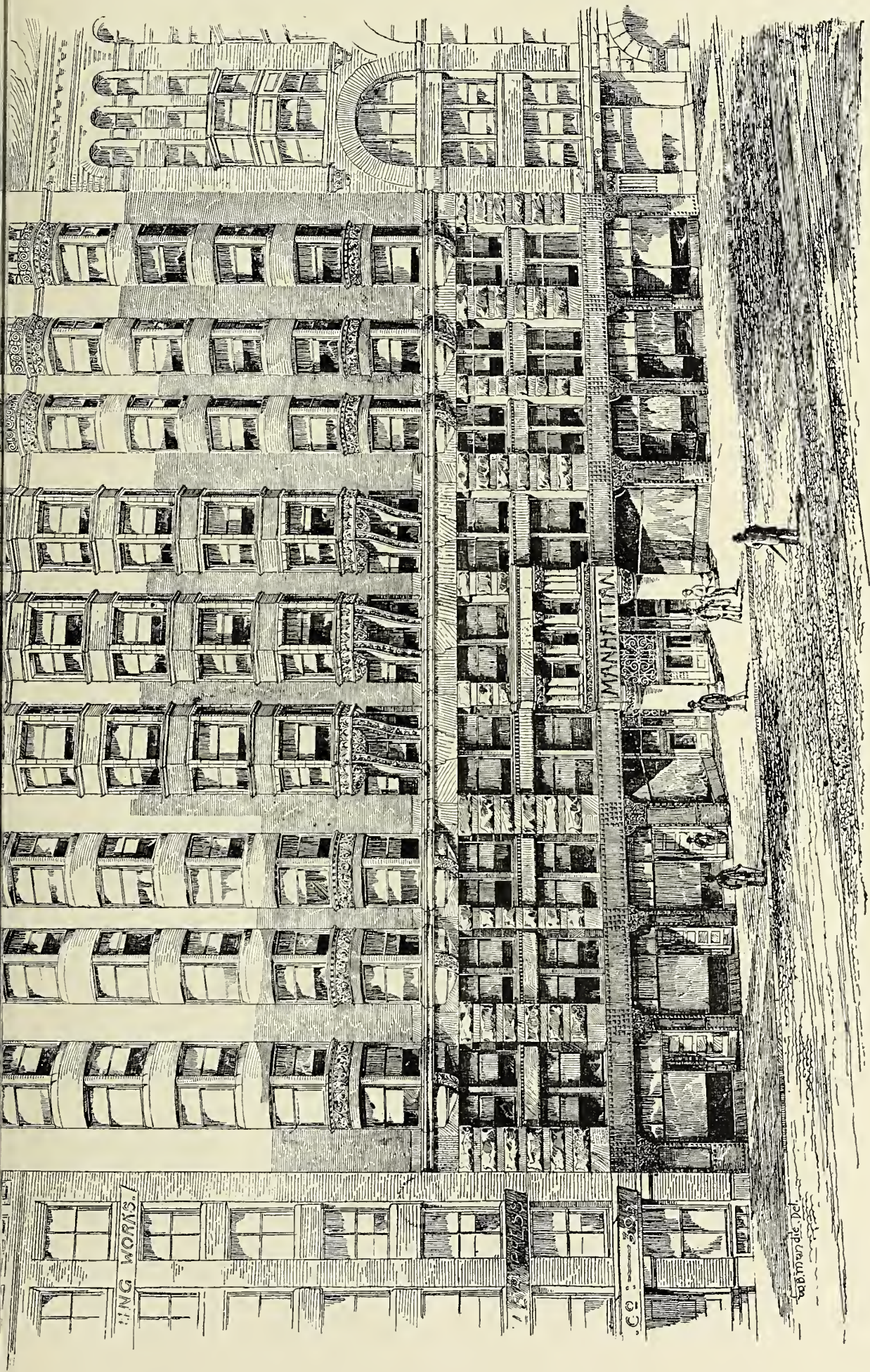












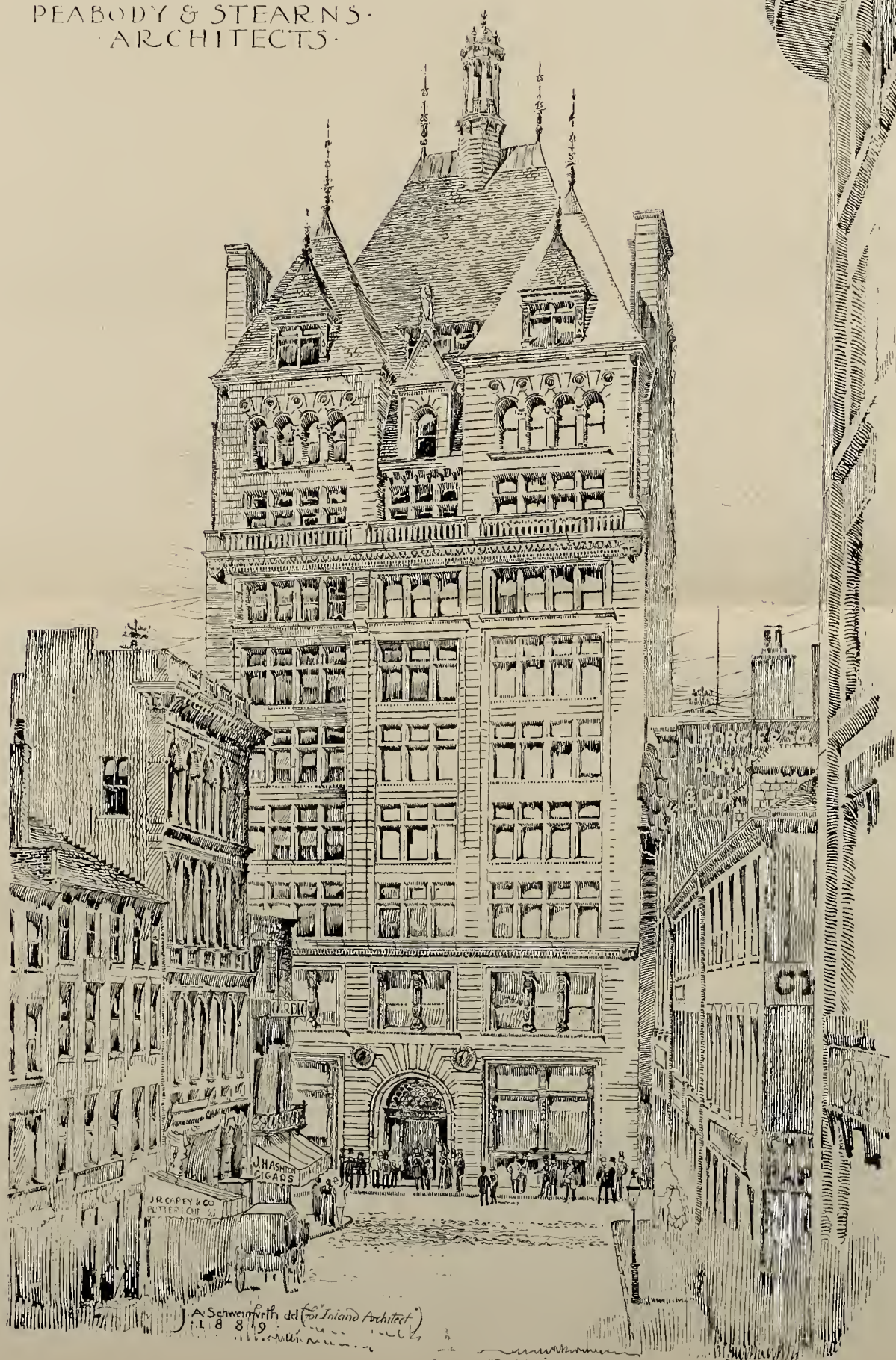
THE MANHATTAN OFFICE BUILDING, CHICAGO.  
W. L. B. JENNEY, ARCHITECT.







FISKE BUILDING.  
BOSTON.  
PEABODY & STEARNS.  
ARCHITECTS.









## No. 1

Where the  
Joint  
Convention  
Should be Held.

Every architect in the United States should read carefully the article written by Architect Dankmar Adler, which is printed elsewhere in this issue. It is sufficient evidence of the gravity of the situation when such an exposition of facts and discussion of a subject that should need no discussion seems imperative. But such is the case. The vote in favor of consolidation was almost unanimous in both national associations. The resolution passed by both bodies last fall ordered that the executive officers of each should then meet, choose a place and time, and call a joint convention. This is not being done. Nothing is being done but an exchange of letters between the secretary of the Institute, whose position in regard to this matter is but that of a private member, and the president of the Western Association, who is a member, and the authorized representative of its board of directors. We feel that we are voicing the sentiment of every member of the Institute and of the Western Association when we say that this must continue no longer, and that those who neglect their clear duty to those who placed them in office and trusted in their active efficiency will not neglect to censure those who are obstructing the path that leads to consolidation. It should be distinctly understood that all this does not indicate the existence of a controversy between the two bodies, much as it may seem to. The entire matter rests upon the question of place for holding the joint convention. The secretary of the Institute takes the ground that Washington is the only proper place because it is the only neutral place. Mr. Adler has shown clearly the fallacy of this position, and we are certain that the fair-minded architects of the East will admit that it is just as unjust to ask the architects in St. Paul or Omaha to go to Washington as it would be to ask them to go to those western cities. With all respect to the honored secretary of the Institute, we would suggest that the board of trustees of the Institute look at the matter in its right light and see that their constituents are waiting



for them to carry out the work placed in their hands, consent to a joint meeting of both executive boards and settle the matter without further delay, and escape the well-merited criticism of the profession because of their dilatory action. As we have suggested—a suggestion that first came from the joint committee of conference—Cincinnati is geographically the proper place for holding the convention. From a point of facility of access and of superior interest to the visitor Chicago stands first, and while we have not before advocated that the convention be held in that city, it seems eminently appropriate. If it can be shown that by holding the meeting in New York city the western visitor will receive sufficient instruction and enjoyment to compensate him for the additional time and expense involved, then let it be held in New York, but it would be more than detrimental to all the objects for which the association is striving to order it held in the city of Washington, especially as an extra session of congress is almost a certainty, and the press correspondents are prejudiced through the past action of Washington architects, whose political environment has made them the mark for general criticism and misrepresentation; a share of which a convention held in that city would hardly be likely to escape.

**Disappearance of the Art of Shipbuilding in America.** If it were not for the native energy and enterprise of the American it is not impossible that the art of shipbuilding would be wholly lost to us. Our architects and engineers are in the advance of the world in meeting the requirements of modern civilization, but for thirty years our once extensive shipyards have been idle, and our commerce is carried on in ships of foreign build. The reasons for this are not apparent, but it is certainly not because we have not the talent. In fact, when the shipbuilders of the United States have met those of other countries upon equal ground they have always been victorious. Since the times of the old merchant clipper ships of Baltimore, the fastest sailing vessels known, we have retained the ability to build superb sailing vessels. The advent of steam led the competition in the direction of steam craft, and our shipbuilders have exercised their talents in the construction of yachts. In this the American's ability to build fast sailers is beyond question. For thirty years the best foreign designers have striven to build a yacht that could carry home the America's cup, and each time they have failed, till this year they dare not compete, though a yacht had been constructed by the best builder in England for the purpose. An American constructed the first semi-submarine gunboat, and, while the genius of the people seems to lie as much in the direction of ship designing as in others, our waters are covered with those of foreign countries. Why is it?

**Resignation of Health Commissioner of Chicago.** It is absolutely useless to criticise, as it is impossible to understand the action of a municipal body, it being almost invariably made up of ignorant politicians and hampered by political machinery that preclude any action that contains the slightest element of ordinary business sense. In Chicago this is probably no more true than in other large cities, but it is, if anything, more necessary that business prudence should govern, owing to her enormous and rapid growth. At a time when public works of immense importance to the future city were contemplated or under way, the commissioner of public works was allowed to resign because he was deemed worth more to

a private corporation than to the city. This, too, at a time when he represented almost the entire executive knowledge and ability among the city officials. Again, Mr. Cregier was allowed to go when it would have been good business policy to have multiplied the \$8,000 per year that would have kept him, by four or five, and still his services would not have been too dearly bought. A more vital and disastrous blunder than this, and the same amount of salary involved, has just been made in allowing the health commissioner, Dr. DeWolf, to resign. Not only the best posted exponent of state and municipal sanitary science in this country, but, like Mr. Cregier in the public works department, his knowledge of Chicago, from a sanitary standpoint, has been acquired through long years of close investigation and incessant labor. Even if a man equally intelligent and equally fitted for the place is secured, he will be obliged to serve as many years as Dr. DeWolf has done to understand the needs and guard the sanitary interests of the city with like effectiveness. It seems to us almost beyond belief that in the face of the accession of over 200,000 population, with a territory which stretches seventeen miles in one direction, a city should hesitate to pay a proper salary to so valuable a servant, occupying a position in which he is more valuable than he possibly could be to any other corporation. If the death rate, through the inexperience or incapacity of his successor, should be increased by one, the city authorities will be responsible for that one, and they will receive nothing but condemnation for their false economy.

**International Congress of Architects at Paris.** It is interesting to note that the two most interesting subjects of discussion at the recent International Congress of Architects at Paris were upon the teaching of architecture and a compulsory diploma for architects. In the first, M. de Baudot claimed that the academical teaching was too much in the line of theory and not enough in practice. The artist was trained at the expense of the constructor. He contended that modern architecture had no esthetic character of its own, and that the discovery of a new art in architecture had become necessary on account of the rapid march of modern science, and that a Greek original or an example of the purer architecture of the middle ages no longer sufficed for a model. In fact, the essence of this argument, in which he arraigned the Ecole de Beaux Arts as in need of correction, was that present methods tended to produce, in the second place a scientific work, and in the first place a water color drawing. Of course, this broad, and truly American, one might say, view awakened considerable discussion, and in a reply by M. Guillaume the system in vogue in the Beaux-arts was ably defended. Arguments offered by M. Chevallier in a paper upon a compulsory diploma were very similar to those urged in its favor by architects in this country; one of the strongest arguments advanced being that it would tend to bring architects in closer association with each other. It is noted that each paper read seems to take the form of a resolution and is voted upon, so that the vote of the association and not the paper itself goes out as the sense of the meeting.

THE attention of architects not members of either the American Institute of Architects or the Western Association of Architects is called to the importance of joining before the consolidation takes place. The directors of the W. A. A. meet about September 15 to consider applications.



## Romanesque Architecture.\*

### CHAPTER XII—Continued.

IN order to counter buttress these great arches, upon which act strong, vertical thrusts, they built against them quarter-spherical or ribbed arches, and the central cupola found itself thus sustained and maintained on all sides. It became the center around which were disposed the half cupolas and ribbed arches necessary to assure the stability of the work; at the same time this arrangement gave to the

edifice great spaces which were utilized for the celebration of the ceremonies prescribed by the Christian liturgy.

From a technical point of view this new mode of building made a great impression on the minds of the architects. It excited their emulation, it provoked them to study this new style from which they could draw such glorious expedients, and they looked into the architectural rules which it was necessary to follow for its application.

From now on the Latin type of basilica became the exception in the East. The cupola was the theme around which were executed numerous variations.

Under Justinian there were erected at Constantinople on different plans a great number of churches with cupolas, presenting a great variety in their arrangement. Notably celebrated in this epoch was the Church of the Holy Apostles described by Procopius.

This Greek historian, so useful to consult by those who are searching for the truth, rather than a more or less exact personal opinion, gives us details of the highest interest, which prove the Oriental origin of the two celebrated monuments erected in the West, reproducing in the eleventh century the arrangement of an edifice built at Constantinople at the time of Justinian.

### CHAPTER XIII.

#### THE CHURCH OF STS. SERGIUS AND BACCHUS AT CONSTANTINOPLE—THE CHURCH OF ST. VITALE AT RAVENNA.

The church of Sts. Sergius and Bacchus was erected at Constantinople in the first years of the sixth century, under the reign of Justinian, and is one of the most remarkable of the Byzantine rotundas built in the East.

The octagonal cupola is flanked by four niches, the axes of which are at an angle of forty-five degrees to those of the edifice. The spaces thus produced aid the transition between the central octagon and the square of the exterior inclosure. Niches placed at the corners of these complete this arrangement. (Fig. 64.)

The cupola of a very original type presents, above eight pendentives, sixteen projecting ribs, separating from each other the concave

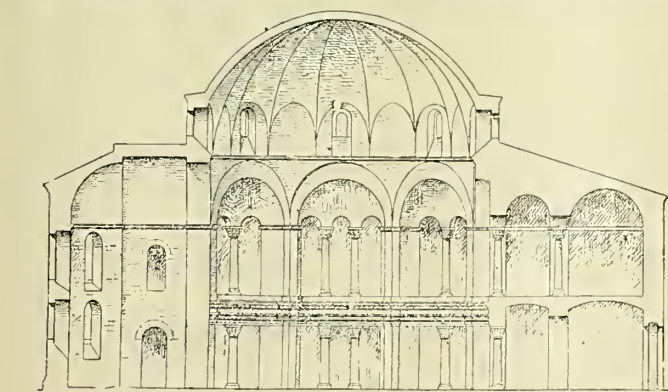


FIG. 63.

vaulting, and forming niches in which little windows alternate, so that they light and decorate the base of the cupola.

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

In spite of the square form of its outside wall, the church of Sts. Sergius and Bacchus might be considered a rotunda, because all its parts are grouped symmetrically around the octagonal base of the cupola.

The problem of suiting the rotunda to the requirements of a Christian church has been skillfully solved. The niches only existing on the diagonal side of the interior octagon, the central space is reduced to a square form and affords a much larger surface, augmented by the galleries surrounding the central octagon. It is a compromise between the rectangle of the Latin churches and the round temples.

The elevation of the bays recalls the Roman arrangement of columns of an inferior order, forming as it were a sub-basement to the general order, relieved by an entablature. The arcades of the upper story form the faces of the octagon, above which rises a pendentive and they are each subdivided by three arcades resting on columns without an architrave.

The church of St. Vitale, at Ravenna, was founded in the year 526 of our era by St. Ecclesius, after a voyage which he made to Constantinople with Pope John I. It appears to have been erected after the plan of the octagonal church built at Antioch by Constantine. The works thus commenced were continued by the orders of Justinian (whose army had just reconquered a part of Italy), under the direction of a person of the name of Julian, who exercised the function of treasurer.

The completed edifice, ornamented with superb mosaics, must have been consecrated about 547 by Maximianus, archbishop of Ravenna 546-556, in the presence of the emperor of the East, Justinian and the Empress Theodora. The general arrangement of the

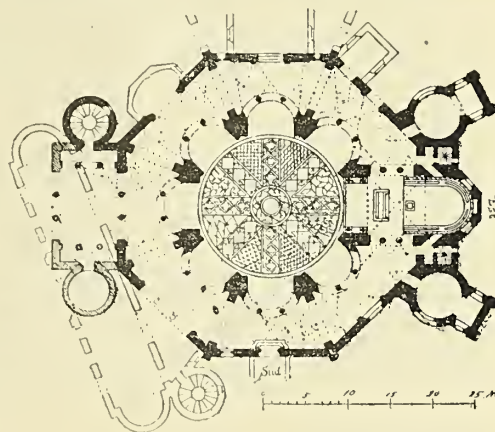


FIG. 65.

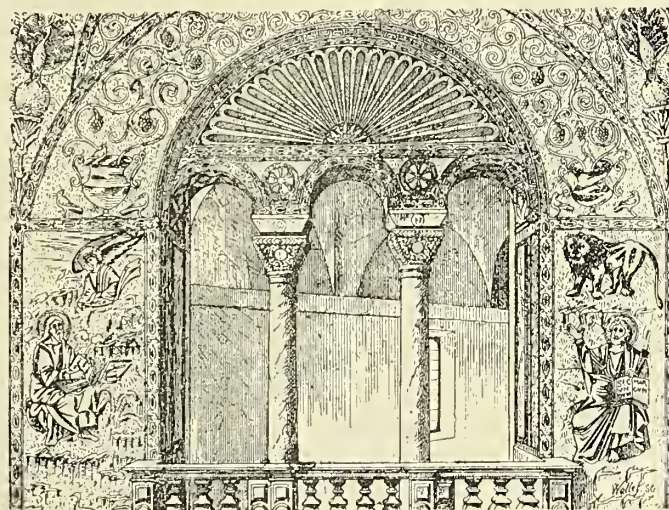


FIG. 67.

church, the details of its interior decoration give to the edifice a peculiarly interesting character, for we find for the first time a purely Byzantine monument constructed in the West at the commencement of the sixth century, bearing the certain marks which characterized the works of the architects of this epoch.

The striking analogies which exist between the plan of St. Vitale and that of the church of Sts. Sergius and Bacchus (called by contemporaries the little St. Sophia, and which really produced the great) led to the reasonable inference that the celebrated monument of Ravenna was constructed by architects from Constantinople.

The plan of the church of St. Vitale is an octagon having an interior diameter of 34 meters, flanked on the exterior by several round towers and terminated at the east by a grand apse. The



church is ornamented according to the rule prescribed by the clergy of the fifth century. The interior nave, 15 meters in diameter, reproduces in its plan the form of the outside wall, but each face is enlarged by an exedra, formed by two columns arranged symmetrically on an arc of the circle, communicating by these intermediate columns with the gallery.

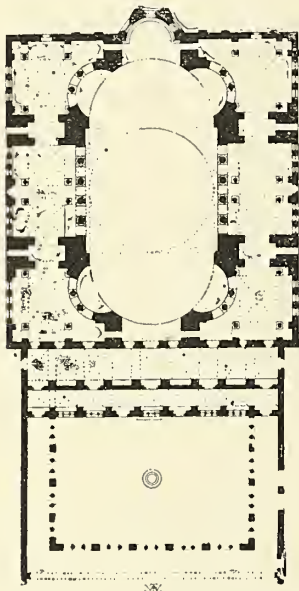


FIG. 70.

The outside galleries, surrounding the interior nave, are two stories, covered by ribbed arches; they establish a connection between the tribune on the west up to the bay of the octagon, containing the sanctuary on the east, on to which open two tribunes in the upper gallery. The choir and the sanctuary are accessible to the lower side galleries by a colonnade, which establishes an easy communication with the sacristy placed in the tower near the apse. The tribunes were, according to custom, reserved for the women.

The modern porch which precedes the edifice has changed the old arrangement. The two-storied warthex or original porch occupied on the eastern face only one side of the octagon; two towers

rose at each end of this porch. They contained stairs opening onto the vestibule of the temple and were used for the upper gallery, and were lighted by windows pierced in the exterior wall.

The exterior of St. Vitale no longer offers any great interest, because its original characteristics have been taken away from it by numerous repairs, and by the addition of a modern porch unwisely placed at an angle.

In the interior the principle of a church with a cupola is developed with a power as original in the composition and detail of the architecture as in the sumptuousness of the applied decoration.

Each face of the central octagon, sustained by eight massive pillars, which bear the weight of the cupola, is preceded by a fine arcade. These arcades contain on seven of their faces, niches, which form a quarter of a sphere behind the great arches, and which are lighted by two stories of arches, lighting the upper as well as the lower galleries. The eighth face of the octagon at the east is open the entire height of the arcade so as to allow the apse and altar to be seen.

Above the grand arcades rises the hemispherical cupola, the circular base of which is joined to the octagon by a series of small pendentives. This arrangement recalls the means used in 515 by the builders of St. George of Ezra. At the base of the cupola eight great twin bays, in the Byzantine manner, light the high part of the central nave.

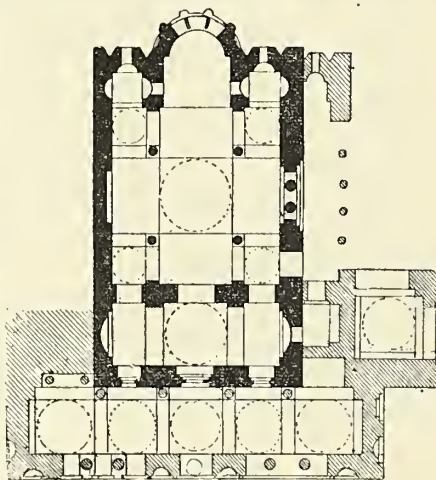


FIG. 72.

The details of the construction attest the continuance of Roman influence; the cupola is constructed of tile work imbedded in very solid mortar, as in the temple of Minerva Medica and the Circus Maximus. In St. Vitale the base of the cupola is built of tile, having the shape of an antique amphora, fitted in, one above the other, and placed vertically. The cupola itself is made in the same manner, but with smaller amphora, which are cemented by mortar. This tile work forms a continuous spiral, of great lightness and proved solidity.

The details of the architecture and sculpture are equally Roman, but interpreted with great crudity, especially noticeable in the scul-

ture of the capitals of oriental form supporting the arches of the great niches. This sculpture is crude and the rudiments of the Roman entablature which surmounts these capitals makes uselessly heavy the springing of the arches.

But what especially distinguishes the church of St. Vitale among Byzantine edifices is the sumptuous decoration of mosaics with which it was enriched in the time of Justinian.

At Ravenna the most beautiful mosaics must be looked for. There is nothing of the kind that equals the decoration of the apse of St. Vitale. On one side, Justinian, surrounded with the dignitaries and guards, on the other, Theodora, followed by the women of her court, offers presents to the church. The empress passes through the

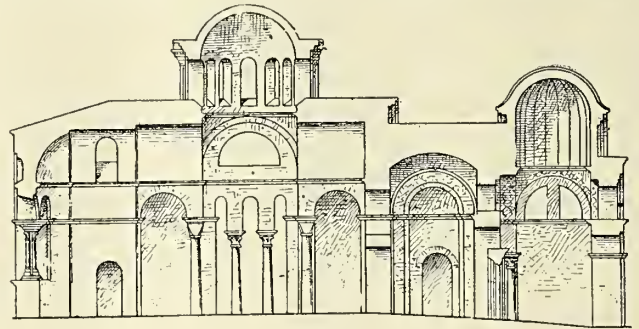


FIG. 73.

atrium, where is the sacred font, while an attendant lifts before her the curtain, suspended at the door of the temple; her costume is splendid; a broad border, which represents the adoration of the magi, ornaments the edge of her robe, jewels cover her bosom, from her hair a fringe of pearls hangs over her shoulders and a high diadem crowns the head, encircled with a nimbus.

#### CHAPTER XIV.

##### CHURCH OF ST. SOPHIA AT CONSTANTINOPLE.

The first temple of Divine Wisdom (St. Sophia) was erected at Constantinople in 325, by Constantine. Constantius, his son, enlarged it in 338. Under the reign of Arcadius, in 404, a fire consumed the edifice, which was reconstructed by Theodosius in 415, and destroyed anew by fire in 532.

Justinian, in the fifth year of his reign, commenced the reconstruction of St. Sophia, giving to the new edifice much vaster proportions and much greater magnificence. The church was rebuilt seven years after, according to the plans of Anthemius of Tralles (who died in 534, before having finished his work) and Isidorus of Miletus, probably his co-worker, but surely his successor, both of them natives of the provinces of Asia, where architecture had developed with the greatest originality from the fourth to the fifth century.

In the month of December, 538, they celebrated the completion of the edifice. The eastern part of the grand cupola, shaken by many earthquakes (one in 553, which lasted forty days, and the other in 557, which destroyed part of the city), fell May 7, 558. Justinian had the cupola reconstructed, and gave the work in charge of the nephew of Isidorus of Miletus, who increased the height of the cupola in order to diminish the thrust, and gave at the same time more solidity to the grand arches.

The church was at last finished, sumptuously decorated and dedicated anew on Christmas day of the year 568.

Historians notice once more a partial damage to the dome in 987, an accident which was promptly repaired.

St. Sophia of Constantinople is considered the type par excellence of Byzantine art; it presents the double advantage of marking the advent of a new style, and attains at the same time proportions such as have never been surpassed in the East or West.

Justinian wished the new church should surpass in splendor all that was told of the most celebrated temples of the ancients, and particularly the temple of Solomon. Viewed from the exterior, St. Sophia

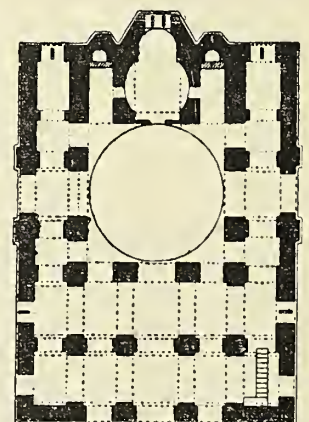


FIG. 77.



produces only a slight impression, and the cupola, even bold as is its construction, appears depressed. It is necessary to enter the interior of the church to understand the originality and splendor.

The plan of St. Sophia seems to have grown out of that of St. Sergius enlarged, and recalls the vast proportions of the grand vaulted rooms of the Roman baths. These two influences are visible, for there can be seen the marked intention of combining the elongated form of the basilica (like that of Constantius, Figs. 16 and 17) with the concentric system of the domed edifices like Sts. Sergius and Bacchus.

The grand hemicycle transforms the central square into an oval, and their secondary niches make this oval a rectangle. The nave is accompanied by narrow side aisles, which have not the characteristic of aisles. Cut by great columns into unequal compartments, and unequally vaulted, they are only appropriate for sacrificial services. Above extend galleries or arcades reserved for the women.

This immense pile, constructed entirely of stone and marble, with the exception of the vaults, which are made of lighter materials (white tiles from Rhodes) is very picturesque, but a little confused because of its dimensions and its very various forms. It extends over a nearly square surface; that of the church alone measures 76 meters long by 68 meters wide.

In front of the temple extends the atrium, and at the side of the church is the double narthex, which communicates with it by nine doors.

The edifice is covered with vaults. A vast cupola, 32 meters in diameter, borne on spherical pendentives, resting its weight on piers, rises in the center.

The principal nave, of a square form, is elongated by two hemicycles, flanked by four grand niches, the quarter-spherical vaults of which counter buttress the base of the cupola on the east and west; the two other sides at the north and south are maintained by powerful buttresses, in the thickness of which are large openings from the gal-



FIG. 80.

leries, which, with the columns, separate the arches from the grand nave. The doors and the apse occupy the back of the hemicycle.

This grand hall is lighted at the side by a network of windows, piercing the walls of the grand arches of the north and south, and in the upper story by forty windows cut at the base of the cupola.

The construction of the St. Sophia is a marvel, for nowhere has been applied with more boldness and freedom the principles of construction of a rational style of architecture.

St. Sophia is a chef d'œuvre of Byzantine art; it has been a model for the entire East. They were forced to imitate it not only in the East, but in all Western Europe, in Italy, in Germany, and especially in France, where antique and Byzantine art sowed the seeds of a style which a few centuries later was to be developed with such splendor.

#### CHAPTER XV.

CHURCH OF THEOTOCOS AT CONSTANTINOPLE—CHURCH OF ST. NICODEMUS AT ATHENS—CHURCH OF THE MONASTERY OF DAPHNI NEAR ATHENS.

The church of the Mother of God (Agia Theotocos) a Byzantine edifice, built at Constantinople within the last years of the ninth century, recalls the almost identical arrangement of the prætorium of Mousmieh built by the Romans in Central Syria about the second century of our era. According to the custom adopted by the Greek Christians the church takes the figure of the Greek cross, formed by the crossing of the four arms, above which rises the principal cupola. The principal nave is flanked by the four arms; that of the east is prolonged to contain the choir, and terminates in the principal apse, accompanied at the side by two galleries, which each end in a small

apse; that of the west enlarged or more exactly preceded by a more or less important narthex, communicating with the side galleries. The cross made by the choir and narthex is often crowned by a little cupola. This arrangement (crowned by a central cupola flanked by four smaller cupolas in the angles of the square above which it rises) is very frequently found in Byzantine architecture.

The influence can still be felt of St. Sophia, which the Byzantine architects imitated, while they simplified the construction as a whole

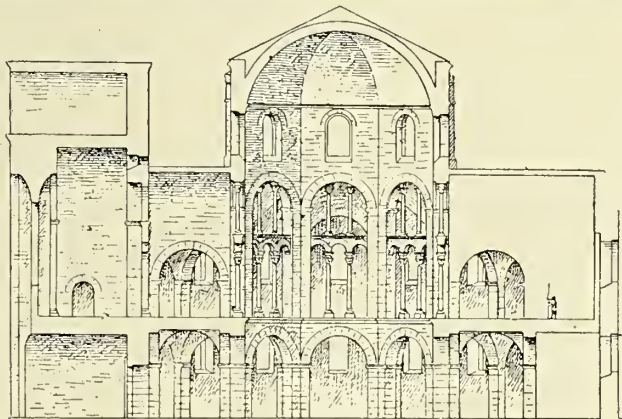


FIG. 84.

and in its details, for good reasons, among which the question of expense must have been one of great importance.

Modifications were made by the builders to insure stability, having for the object the increase of the solidity of the arch forming the square, or the diminishing of it more or less, according to the importance of the cupola. The cupola rises more above the grand arches, and the high windows arranged at the base of this cupola (which seemed there to herald the Romanesque lantern towers) take a much more important place in lighting and decorating the central part of the building.

The cupola of the church of Theotocos presents these characteristics in a most interesting manner. It rests on very marked pendentives, changing the square form, above which a crown of windows, on a circular plan, is finished by a hemispherical roof.

The masonry of this building is most carefully studied. On the exterior the walls are of brick, or oftener in alternate courses of brick and of cut stone. They are even often divided into great horizontal bands, differently colored, that were made the general feature of the building by introducing them into the casings of the windows and the spaces above the arches. In the interior, the mosaics, with a gold background, are replaced by marbles or very simple mosaics, or often by frescoes applied to a glazed surface, prepared with care.

One of the grandest churches in Athens is that of St. Nicodemus, built about the tenth century, according to the principles of Byzantine art modified by Greek construction.

The edifice is crowned in the square central nave by a singular circular cupola, the base of which, decorated by windows, recalls that of Theotocos at Constantinople, but the part used to modify the square plan is different. The architect not daring to construct his cupola on four pendentives, or seeking a new effect, raised it on four large niches, or, more exactly, on four corbels, making it pass from the square to the octagon plan, and from the octagon to the circular by eight winding tympanums raised on the extrados of eight arches. The apse and two small apses open on the east side of the central side. These are surrounded by vaulted lower side aisles, supporting a gallery equally vaulted, destined for the women.

The edifice presents this peculiarity, that it is covered by a terrace, above which rises a cupola, preceded at its base by a crown of windows opening above the roof.

The most curious mosaics for the study of Greek and Christian iconography decorate the walls of the interior.

#### CHAPTER XVI.

THE CHAPEL OF THE PALACE OF CHARLEMAGNE AT AIX-LA-CHAPELLE—CHURCH OF GERMINY-DES-PRES (FRANCE)—CHURCH OF LA MARTORANA AT PALERMO (SICILY).

The Palatine chapel of Aix-la-Chapelle was erected by Charlemagne, at the end of the eighth century; a monk, Fontanelles (St. Wandrille), directed the work, and the pope, Leon III, dedicated it on the Day of the Kings of the year 804.

Since the erection of St. Sophia till the ninth century no other Christian edifice was the object of so much solicitation on the part of



the founder as Notre Dame of Aix-la-Chapelle. Imitating Justinian at St. Sophia, Charlemagne had brought from Treves, Rome and Ravenna precious materials destined for his palace and the adjoining chapel. In the church, the doors and balustrades still existing are in bronze; the cupola was covered with mosaics.

The Carolingian rotunda of Aix evidently preceded the Byzantine rotunda of Ravenna. Like that, Notre Dame of Aix-la-Chapelle was composed of a central octagon hall,  $14\frac{1}{2}$  meters in diameter, vaulted in a cupola, surrounded by side aisles  $6\frac{3}{10}$  meters wide, where galleries two stories high opened into the central nave.

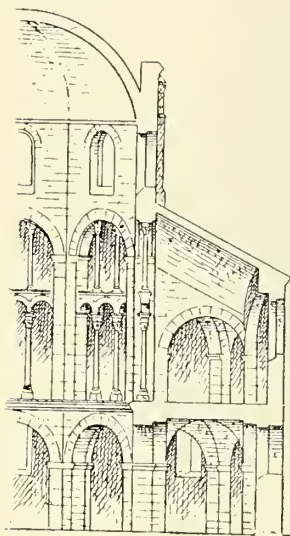


FIG. 85.

appears in the galleries which ran around the building, which in the Palatine chapel were better connected with the supports of the cupola, and by themselves better arranged than they are at St. Vitale.

In the Palatine chapel the supports of the cupola were comparatively slight, and the weight of the masonry was carried over to the outer walls. This formed a polygon of sixteen sides, combining with the octagon by a series of vaults alternately square and triangular. Ribbed arches, springing from points built onto the pilasters or the outer walls, formed sixteen flying buttresses, which carried over to the latter the thrust of the cupola. The lower galleries had groined arches, on which was carried the floor for the high galleries; these were covered by light ribbed arches, forming sloping barreled vaults, on which was rested directly the roof composed of slabs of stone or terracotta, or perhaps even plates of lead or bronze.

If monuments of a certain date merit the attention of the archaeologist, those which were raised by Charlemagne, or in his time, ought to be particularly studied because of the influence, direct and indirect, which they have had on Romanesque architecture.

We have seen the Palatine chapel, the most important of the edifices built by Charlemagne. We must now mention one built in France at the same period, that is, the first years of the ninth century, the church of St. Germigny-des-Prés. It is most curious because it has all the characteristics of the Byzantine churches built before the ninth century in Constantinople or at the commencement of this century in Athens. It presents, at the same time, a striking analogy to an antique edifice, the prætorium Mousmieh (Figures 6 and 7) in Central Syria, built by the Romans in the second century of our era. According to the writings of the Monk Létolde, who lived in the tenth century, Theodulph, Bishop of Orleans, after having been Abbot of St. Benoît-sur-Loire, had constructed in 806 the church of St. Germigny or St. Germigny-des-Prés.

It is composed, like the edifice we have seen in Central Syria, of a nave of a square plan, crowned by a very high dome, built in rings, sustained by walls raised above to insure its stability and receive the open timber roof. Around the nave, four equal side aisles form a square, flanked by three, sometimes four apses, the principal one on the east, and the two or three secondary ones on the three other points

of the compass. The side aisles mounting above the apse are covered by vaults, above which still rises the central nave, each of its faces pierced by a little window lighting the upper part which preserves its square form. The three or four apses have quarter spherical vaults; the principal one at the east is ornamented with arches, and the vault of the hemicycle is decorated with mosaics, with a gold background. The high part of the central nave is covered with stucco, and the entire edifice is built with great care, of small stones. The arrangement of the central nave, rising in different stories above the equal side aisles, and the apses, is interesting to study for several reasons. First, because it is an evident reminiscence of Latin, Byzantine or Greek cupolas, like those of the prætorium of Mousmieh and St. George of Ezra, in Central Syria, the baptistery of Novane, of St. Vitale, at Ravenna, the churches of Sts. Sergius and Bacchus, of St. Sophia, of Theotocos, at Constantinople, of St. Nicodemus, and of the church at Aix-la-Chapelle. Then, also, because it is an innovation, and because the mode of rational construction is much more simple and less expensive than that of the cupola; and finally, because it is one of the first applications in France of the lantern tower raised above the principal altar, over the cross formed by the nave, the two arms of the transept and the choir, following a system of construction of which we have established the relationship, and which about the tenth century showed such extraordinary development while being perfected.

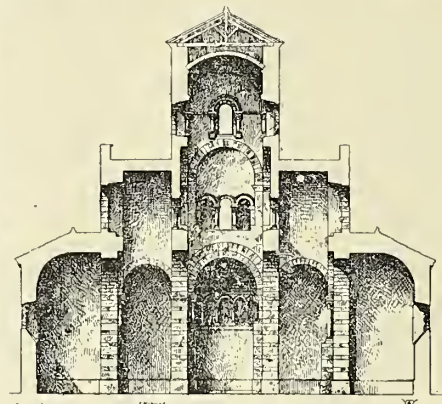


FIG. 87.

## The National Style — A Suggestion.

BY F. E. TOWNSEND.

NOW that the National Association seems to be an assured fact, a few words on a national style would not be inappropriate.

A student of architectural history will see that the existing styles are not so much the product of evolution as the outgrowth of different needs, "Necessity ever being the mother of invention." As the different classes and nations had different wants, so did they design their buildings to suit their various ends. As their needs were similar we can trace it in their architecture. We study the social and religious life of the ancients by the ruins of their buildings.

At one time they all had the same point to start from, namely, the four elementary forms of building—the wall, arch, column and lintel. With these forms, their building materials and a knowledge of their wants, they set to work, and our present styles of architecture are the result.

If we would have a national style, we must go back to this starting point and begin as they did, but with this difference, we will have the benefit of all their experience to help us the better to work out our new style, or a style especially adapted to our needs and uses.

The architectural wants of the American people today are different from those of any other nation, and decidedly different from those of any people that have gone before. This being the case, why not have buildings that are different in that they meet these new demands?

Our architects have shown a realization of this need by trying to distort the existing styles so that they would satisfy our increasing desires. The late Mr. Richardson and others have given us an idea of what might be done in this line, but one must see that by working, as they have, without comprehensive object or definite aim, they have sometimes given us buildings that are almost all that could be desired, and again they are away wide of the mark.

A perfect building, as far as the eye is concerned, should be like a tree: when we first come in sight of it, the general outline, massing and proportion should be pleasing in effect; then, as we come nearer, the various parts in their richness of detail should be even more interesting. How many of our buildings possess this double interest?

One of the fields that is now open (always has been open) for the American architect to work in, in his study for a new style, is *adaptation*. That is, to make all our buildings show by their outward

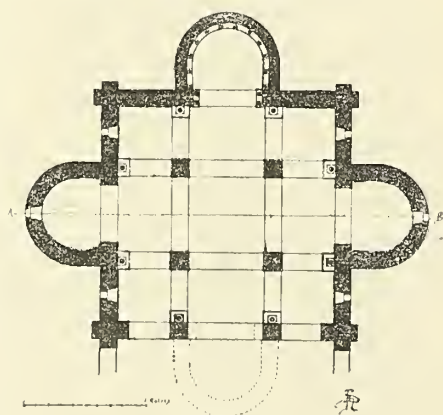


FIG. 86.



appearance as clearly what their use in the world is, as do the different rooms show their use in the building.

Our architects have immeasurably improved upon the models furnished by the Old World as far as plan is concerned, and have also made some advancement in interior decoration; but for the exterior, they are a long distance away from what might be. Every building should say plainly to the observer "I am a bank," or residence, or whatever it may be.

Our churches—a great many of them—are stamped with an individuality that is all their own, and every other class of building should be equally characteristic. Let this be the basis of our national style. As we have already done this in plan, now let us put our experience, skill and ingenuity to the test and see what we can do for an elevation.

In a few scattered examples about the country we have buildings that are admirably adapted to their use, but, perhaps, in the same town will be others similar in appearance and used for totally different purposes. This should not be.

To reach this desired end we must practice our profession more as an art and not grind out drawings at so much per yard.

Romance and ideality must come into the designing room and be honored guests. They can be there and be on good terms with science and practicability, for the better places the two latter occupy and the better they are understood, the more chance the two former will have for a good hearing when they are needed. The painter who best understands the mechanical parts of his profession is the best able to give form and color to his thoughts when placing them upon canvas. So with the sculptor who best knows the composition, grain and texture of the marbles in which he works: he will always choose that which will bring out to best advantage the points of his figure.

The national style here suggested may be reached by two courses. One is to take the various forms of the present styles and treat them like colors in a box; in using them, so tone, harmonize and blend them together as to make one perfect whole, and allow the designer to bring forth pictures that will be something like, yet decidedly different from any now in existence.

Another way, and by far the most American, is to take the fundamental forms, our native materials, and, with a knowledge of our wants, work out new forms, new molds, new ornaments, and altogether make up a combination that will be a new style.

In such a scheme, we can use the old architecture as a formula for working out our problem. We will have to be bold and free, wielding our pencils as the experienced surgeon does his knife. Idealize American life and express it in the face of our buildings. At first it will be like laying down a hard pencil and taking up charcoal; but when we once realize the depth and breadth of expression that is possible, the master hand will give us buildings that will be the wonder and admiration of all.

Above all, make the buildings expressive; make them speak plainly to every passer by; let every façade be a sign that can be read by the most casual observer; in fact, let us have more romance and less "so many dollars per superficial foot." Let the profession, the National Association, take a decided stand on this point and the public will soon come to it. They will not hold up our art unless we do. They are gradually coming more and more to appreciate the profession and its services and to demand better buildings. Use every effort to encourage this feeling, and rise above this dollars and cents line and have more true beauty in the grandest of callings.

As this is the age of breaking away from old notions, foolish theories and foggy prejudices, let us show the benefit of four thousand years of education and have a new order of things—a national style.

MR. W. J. STILLMAN, the art critic, writes to the New York *Evening Post* that M. Hébert, director of the Académie Française at Rome, "one of the most thoughtful of modern French painters, and, perhaps, the best representative still living of the great poetic French school of art," says of Mr. Cole's engravings now appearing in the *Century*, that "he had never seen such work on wood, and did not suppose wood engraving to be capable of it." As was stated in the announcement of this series, the appearance of the engravings is in chronological order. Specimens of the work of such pre-Raphaelites as Cimabue, Giotto, Spinello, and others have already been shown; and while the reproductions of the paintings of these artists are of the highest value to art students, the general public will be more interested in the later work, which is to include admirable specimens of the art of Perugino, Leonardo, Titian, Michael Angelo, Raphael, Paul Veronese, Correggio, Tintoretto, and many other well known names—the masters of the world's art.

## Where Should the Joint Convention Meet.

BY DANKMAR ADLER.

TO determine which is the best place for holding the initial convention of the re-organized American Institute of Architects is a problem requiring most careful consideration at the hands of those in whose charge the joint resolutions of the American Institute of Architects and the Western Association of Architects have placed it. To me the essence and value of architectural associations are in their conventions. I know that in this respect there is a divergence of opinion. Most of the members of the Western Association of Architects, together with many of the younger fellows and associates of the American Institute of Architects, are of my way of thinking; while the older members and the trustees of the institute hold to the belief that the interests of the corporate body and of the profession must be carefully preserved and guarded by the trustees of the Institute; all action, whether that of initiating or consummating a movement, must emanate from the trustees, who, to all intents and purposes, represent the rank and file exactly as a board of directors in a railroad company represent the stockholders.

As between these two points of view, argument is supererogatory. It will ever be natural for the "Wild Westerner" and for many a young Easterner to believe that in matters of this kind the main creating body is the superior to the minor one created by its action, and that the duties of this minor body or board are but to carry out the instructions of the body at large, and to take such initiative action in the intervals between conventions only where immediate action is necessary and cannot be deferred until the body at large can be heard from. On the other hand, there is no argument that will convince those whose judgment and experience have guided the institute these many years that they are in error when they assume that an associated body of architects must be kept in leading strings; that its work must be done by a board of trustees; that the action of a convention is inherently hasty and ill-considered, that of a board of trustees necessarily wise and judicious, and that, therefore, a convention attended by but a few select and choice spirits is much to be preferred to one largely attended by the rank and file.

I will, therefore, confine myself to the consideration of my subject from my own point of view; believing that if the reorganized institute is to live and accomplish beneficial results it must do so through its conventions, and that these conventions must have a large attendance of representative architects from all parts of the country; that the good of these conventions is less in the resolutions passed, in the committees appointed, in the officers elected, than in the spirit of cordiality and mutual goodwill among members of our profession fostered at these gatherings. I must confess that there is no line of experience of my later years which has been of greater personal value to me than my attendance at meetings and conventions of architectural associations. I believe that I have become, by the intimacy of association with my fellow architects as fostered by these conventions, better and abler as a man and as an architect. I cannot but believe that the experiences of others must be analogous to mine, and that the status of our profession at large has risen with the rise of its component members. We all remember the time when all architects lived, as regards each other, lives of cats and dogs; when the client, taking advantage of the absence of morale and *esprit du corps* in our profession, invariably made detraction of other practitioners, and statements as to how eager they were to do his work for a nominal consideration—a part of his financial argument with us; and we, not knowing personally our fellow architects, were ready to believe these statements and to shape our course accordingly. Again, it is but a short time since each of us guarded his personal knowledge and experience as his own private and individual property, as something the like of which was possessed by no one else, careful to impart no information to his confreres, thereby isolating himself from their experiences, and losing far more information and knowledge than would have been the value of that he might have been able to impart.

How great the change wrought in our relations and condition within the last few years. While indications of the old evil spirit are still remaining, they cannot help but melt away in the genial warmth of personal intercourse fostered by our conventions; and the beneficial influence of these conventions upon those who attend them, and the reflex action of this upon the entire profession, will increase from year to year.

I deem it, therefore, of the highest importance that general attractiveness and accessibility to the greatest number be deemed the prime desideratum of the place fixed for holding our initial convention. It is in this respect only that geographical and sectional con-



siderations should present themselves. We are neither Eastern, nor Western, nor Northern, nor Southern, but American architects, and by our recent action members of the *American Institute of Architects*. And when we meet it should make no difference to us where we meet so long as the place selected for our meeting is one so situated as to attract the largest possible number of our fellows.

Mere convenience of access is, of course, not all that is wanted. There should be, in the city selected for our convention, a sufficient amount of interesting architectural work that its study may in itself form an inducement to those living at a distance to devote time and money required for the journey. There should be resident in it a large number of practitioners, members of our body, to form a nucleus to the members of the convention, and to provide within reasonable bounds for the instruction and entertainment of the visiting fellows during the time when they are not occupied in the convention. Among the resident practitioners should be a number of men of such distinction and eminence as to awaken a desire on the part of all to meet them and fraternize with them in convention.

It is necessary that our next convention be characterized by the largest possible representation of every section of the country; that when the reorganized and rejuvenated American Institute of Architects enters upon its career, it shall do so under the most favorable auspices, and that as many as possible of its members from the East and West, from the North and South, shall meet and learn to know and esteem each other.

It has been said that the coming convention must be held in a neutral city. Why in a neutral city? A condition of neutrality implies the existence of warfare. But that there is no warfare among us, that we are united, is shown by the vote upon consolidation of our respective organizations. We are united, we are not at warfare with each other, there are no hostile bickerings among us; and the assumption that these exist and the consequent deduction that we can meet only on neutral ground, is high treason to our cause.

I therefore repeat, that general attractiveness and accessibility must be the controlling factors in the selection of the convention city, and that the term neutrality must be barred. Geographically, Cincinnati is the central city of our new organization; it is easy of access, it contains many buildings interesting to the profession, and many architects of exceptionally good standing whose acquaintance we should all like to make and cultivate.

Yet, although Cincinnati is centrally situated, Chicago is the most easy of access of all cities in our country. It is in this respect like Rome, and in general architectural interest it ranks immediately after New York and Boston. I therefore consider Chicago the ideal city for our coming convention, and it would be particularly appropriate if the work so auspiciously begun there with the paper upon consolidation of architectural societies, read by Mr. Burnham before the institute convention of 1887, could find its consummation in the convention of 1889, held in the same place, perhaps in the same hall. I look with much favor, as a convention city, also, upon New York, which is easy of access and than which there is certainly no city in the country which, architecturally, is more interesting, and among whose resident practitioners are so many men of national reputation, whom all of us would like to meet and know, and to sit with whom in convention would be deemed an honor by every architect in the country.

In one of these three, it appears to me, we should hold the coming convention. Washington, which has been mentioned so much as a neutral city, has nothing in its favor except its neutrality, and the fact that it is the National capitol. But if we examine the records of the many, many conventions held in this country by associations similar to our own, we shall find but very few who have found Washington a suitable place for their meetings. And if, as is quite probable, congress is in extra session at the time of our convention, and Washington is overflowing with office-seeking politicians, etc., then it would certainly be a good place to stay away from.

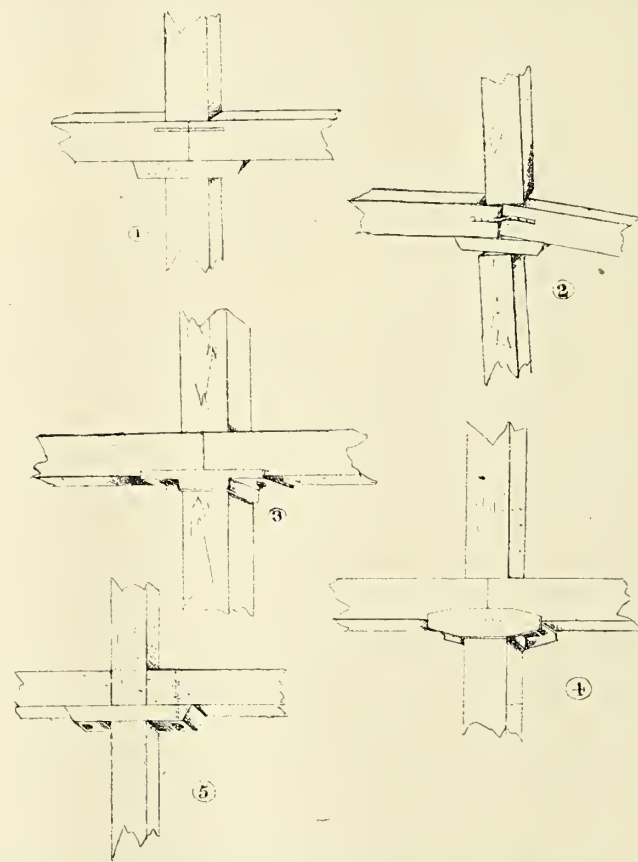
By virtue of the resolutions adopted by the American Institute of Architects and Western Association of Architects, the selection of a convention city rests jointly with the board of trustees of the one and the board of directors of the other. These bodies have as yet had no joint meeting; let us hope that, when they meet, their eyes will be opened to the fact that we are at peace, and that they will be unfaithful to their trust if they indirectly announce the existence of war in our midst by issuing a proclamation of neutrality. Let them consider that what the institute wants is a gathering of the greatest possible number of its members, so that the action of its first convention may be as nearly as possible the action of a majority of the

institute, and that they, therefore, locate the convention in the city most likely to attract the greatest number of participants. This will certainly not be Washington, but it may be New York, it may be Cincinnati, it certainly is Chicago.

I take it for granted, however, that it is impossible to induce our ultra-conservative friends of the East to consent to a convention held at the West, and should this opinion be verified by the action of the joint meeting of the two boards, I trust our western representatives will yield readily to the selection of New York as a convention city. For our convention and its utterances must be something more than a repetition of a certain one held once upon a time in Tooley street. Nor should it be a repetition of the snug and cozy so-called conventions of the institute as held at Nashville, Albany, Newport, etc. It must be a *mass meeting* of architects from every part of our country—and we'll get that at New York almost as easily as at Chicago or at Cincinnati.

### Methods of Anchoring and Safe Construction.

ACCORDING to the Chronicle Fire Tables the loss from fire by exposure, i.e. where fire originated on adjacent property, was \$32,000,000, in the year 1888. The exposure hazard is now attracting considerable attention, and the underwriters have about accepted it as a well settled fact, that the average fire will damage not only the property in which it originates, but seven-tenths of an adjacent risk. The work of fire extinguishment is being improved every day, and is usually well done, but the firemen seem unable to confine fires to the point of ignition. The conclusion, therefore, seems plain that we must look for causes, somewhere, in our present methods of construction. We assert that the walls of a building should not only serve as an inclosure and support, but, as far as possible, should, by remaining erect during a fire, serve as an impenetrable barrier to prevent the extension of the conflagration. Could the walls have retained their vertical position during the great fires of



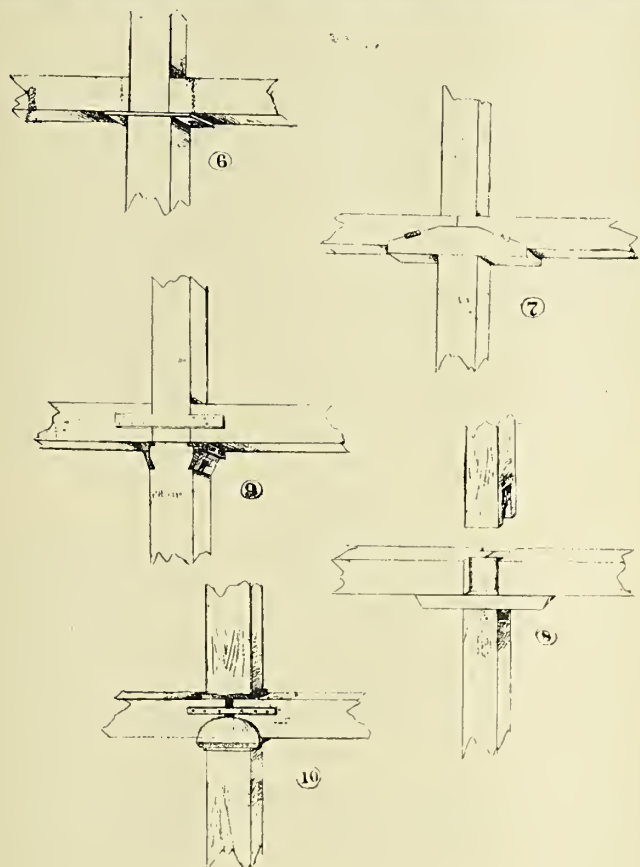
Chicago, Boston, New York, Buffalo, Atlanta, it is evident that the fire in certain directions would have been stayed and the damage been much less. By examining into the main cause of falling walls, we will find that the joists usually have with the outer wall some fixed connection; during a severe fire the joists quickly burn through, and in falling this fixed connection causes the wall to buckle and fall out or in. At present the architects and builders are using many methods of anchoring, few seeming to have any choice or standard. We here illustrate the leading types, one of them being of wood. In each the sole aim is to more or less securely fasten joists and wall together. All are also inconsistent, the joints being cut on a splay to allow them to fall out, and also being fastened so they cannot fall out (see Figs. 12 and 13). Methods of anchoring should, therefore, be adopted so that falling joists should free their anchorage and leave the wall standing. The Goetz-Mitchell method consists of a cast-iron box of exterior dovetail shape, whereby it is adapted to interlock with a wall into which it may be built, and an upwardly projecting lug at the bottom in combination with a notch in the beam



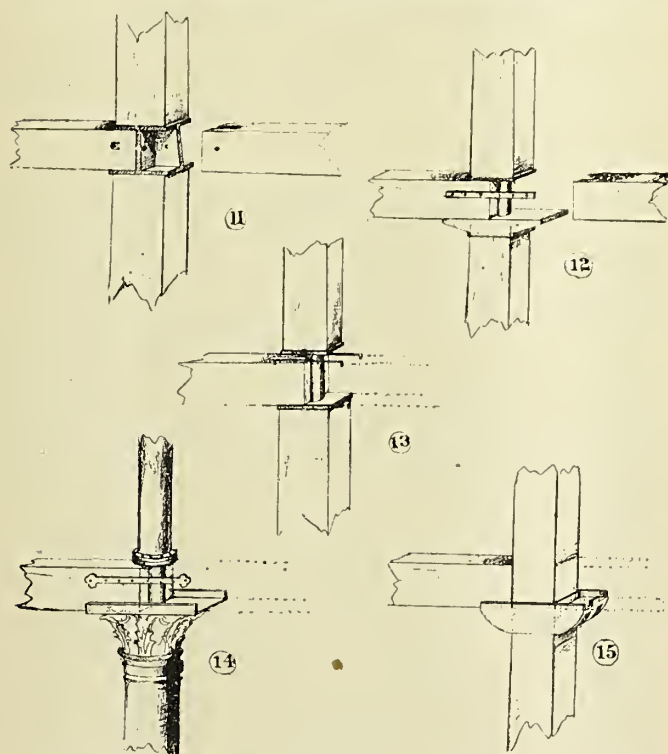
that fits over the lug, thereby forming a tie between the opposite walls (Figs. 14 and 15). In damp situations, and where timber is subject to dry rot, there can be ventilation provided by having air-space side guides as shown (Fig. 14).

With this method of anchoring a greater weight increases the bondage, no joist can enter a smoke flue, nor is there any danger from fire in being built in close proximity to smoke or heat flues. In case of fire, the joists in falling free the anchorage and leave the wall

damage than any fire possibly could do in the building itself. This is especially the case where two parties use the same wall, it being sufficiently strong for a sustaining wall, but in case of fire the same is thrown down and thereby exposes to destruction two or more parties. During the erection of a building the possible loss by fire from exterior causes is overlooked, therefore the building laws should be so

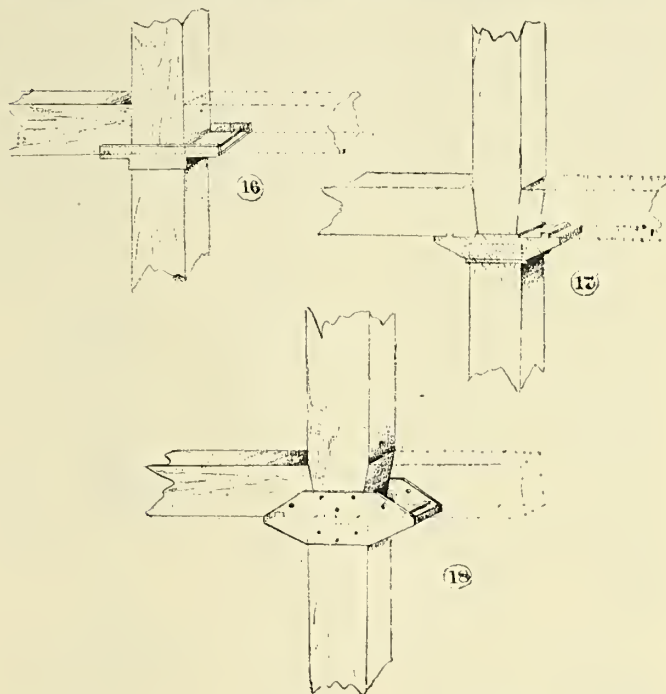


standing, the walls are not weakened by any breach or break, the box remains in the wall and forms a space for the easy replacement of joist. If used in a party wall, the joists upon either side can fall out while every joist upon the other side is holding the wall in position. Insurance companies look with great favor upon this method, and several are making preparations to adopt this as their standard; this,

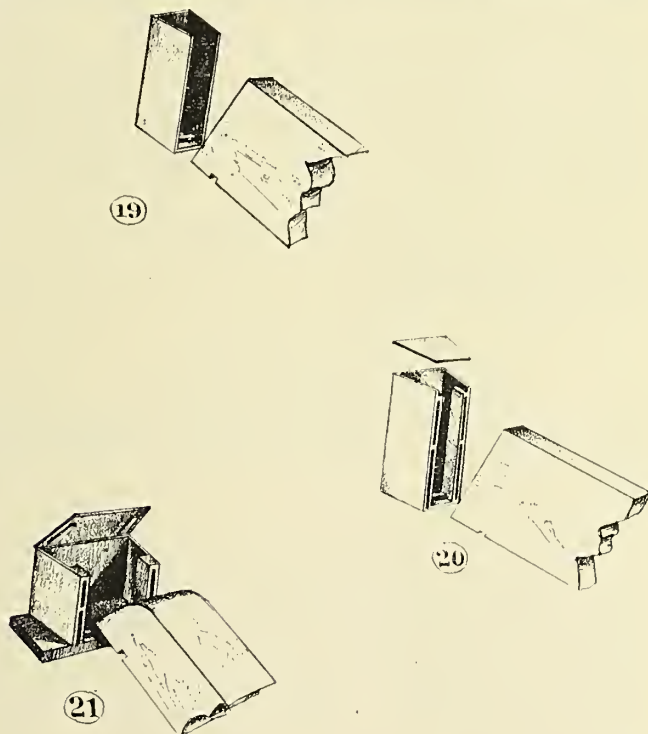


of course, will result in lowest rates to all buildings in which it is used.

An honest man doing a profitable business cannot afford to have a fire. His insurance will not compensate him for the interruption to his business. It sometimes happens that no matter how expensive and safe a building is put up, a fire next door will, perhaps, do more



framed as to compel everyone to put up a building so that in case of fire it would destroy itself alone and leave the adjacent property intact. This can in a great measure be accomplished if some method of anchoring be adopted, so that falling of joists and beams shall free their anchorage and leave the walls or balance of the structure standing. According to carefully prepared insurance statistics, the loss by fire from exposure (where the fire originated on adjacent property) is nearly as great as all interior causes combined. This fact conclusively shows that we do not pay enough

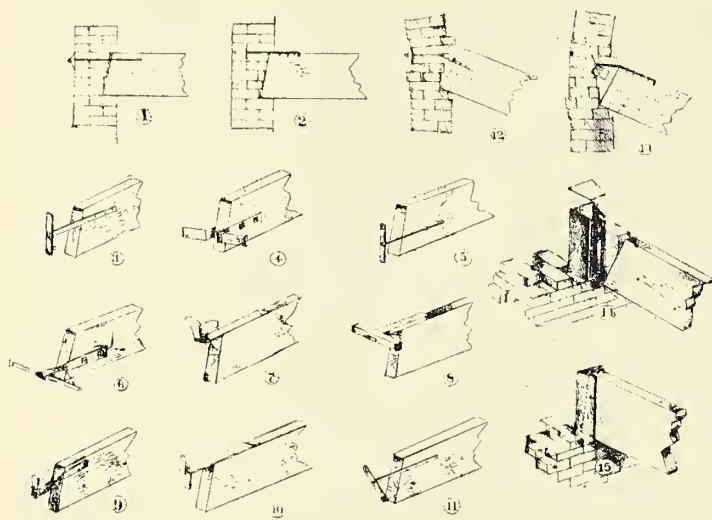


attention to construction from a "fire loss" point of view, and the many different methods of fastening the heavy timbers in warehouse and mill construction show that there is no general or standard method in use, each party using whatever device has come to his notice.

Figure 1 shows a method of which a prominent Factory Mutual authority says, that such crude and poor adjustment of material should not be permitted. Unfortunately no general attention is being paid to safe construction, and to this day there are structures going up in which this faulty method is being used. Figure 2 shows result likely to happen in case of fire. Eighteen methods are illustrated, each having some points of advantage or fault, numbered in regular order, and each being an improvement over the preceding



ones from a "fire loss" or "insurance" point of view. Figure 18 is the very best, being in fact a combination of all the good points contained in the rest. The advantages are, no crushing of timber and consequent displacement of parts; a falling horizontal beam cannot displace any vertical column; all parts are firmly held and bolted together; the vertical columns, when bolted together as shown, form a continuous column to the roof; a severe fire can throw down only such parts as are burned entirely through; no tendency whatever to pull other parts down. The shearing strain of the notched beam presents more resistance than bolts and nails, and finally an increased load upon the structure makes the bondage greater, while in many of the others an extra load has a tendency to force the parts apart. Figure 18 is the invention of Henry A. Goetz, of New Albany, Ind., who has also, in conjunction with Mancell Mitchell, invented the wall-anchor referred to by the use of which the falling of joist frees the anchorage and leaves the wall standing. It will be quite a convenience for



architects to get these castings already made in regular sizes; therefore foundry agencies are being established as fast as possible to supply those who desire to use this device, which contains many points of excellence.

The Goetz-Mitchell method of anchoring, as shown above and in the accompanying cuts, consists of a dovetail-formed box or receptacle, whereby it is adapted to interlock with a wall; upon the bottom of the box there is an upwardly projecting lug; a notch on bottom edge of joist or beam fits over the lug, thereby forming a secure bondage between opposite walls (see Fig. 19). In Fig. 20, an air space on each side prevents dry rot. Figure 21 shows anchor for heavy timbers, the bottom of box being extended outwardly, forming a secure bed-plate. A falling beam does not weaken the wall, because the protector remains. A falling beam frees the anchorage, with no tendency toward pulling the wall along. No dampness from wall can affect the beam; dry rot is prevented. No fire can pass through the wall in either direction. No danger from fire in being built in close proximity to smoke flues. No two beams can ever meet, nor can they be built so far in as to break the wall in falling out. The socket forms a receptacle for the easy replacement of beams that were burnt out. The mason need not wait for the carpenter but can keep on without delay.

### Association Notes.

#### THE KEARNEY, NEBRASKA, SKETCH CLUB.

A sketch club was formed in Kearney, Neb., on July 20, to be known as the Kearney Sketch Club. The following were elected officers: President, M. G. Farmer; treasurer, E. R. Will, and secretary, W. Pell Pulis.

#### DENVER SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.

The regular meeting of the society, which was held July 9, 1889, was called to order at 8:15, President Nettleton in the chair. Thomas Withers was elected a member, and applications for membership were received from John W. Nesmith, president and principal owner of the Colorado Iron Works, and from John Philips Maxwell, state engineer, of Boulder, Colorado. Mr. Angell and Mr. Campbell were appointed to arrange specimens of sandstone given to the society by the State Board of Capitol Commissioners. Mr. Edmund P. Martin illustrated and gave a description of the Fourteenth street viaduct of Denver. The viaduct will extend from Holliday street along the south bank of Cherry creek over the Platte river to Platte street in North Denver, a total length of 3,500 feet. It will cross over most of the railroads coming into the city, and will have a roadway of 40 feet between sidewalks, which are 8 feet wide. It will be built of iron and earth embankment, and will cost, complete, \$107,000. It will be graded on west approach 3 degrees; east approach 2 1/10 degrees. The embankments are built by an endless chain dredger, taking sand and gravel from the bed of Cherry creek, and will be protected by smelter slag for 8 feet in height. The cost of the embankment will be about \$20 per lineal foot. The cost of 750 feet of ironwork, so far, \$44,000. The girders and posts cost about \$40 per foot. On the discussion about dams, Mr. E. S. Nettleton, supervising engineer of the United States Geological Survey, gave a description of the proposed new dam at El Paso, Texas, over the Rio Grande river. This dam, if built, will make the largest freshwater reservoir in the world, and is to be built by the United States and the Republic of Mexico. There are three proposed sites for dams, all 60 feet high, and varying in length on top from 450 to 700 feet long. The lake will average three and a half miles wide and fifteen miles long; to be used for manufacturing and irrigating. It will have gates to control floods, a silt reservoir, flusher, etc. The members discussed the Conemaugh and Quaker dams and adjourned at 10:30 P.M.

### Our Illustrations.

With this number we issue the following supplemental sheets:

Library at Morgan Park; Charles H. Frost, architect.

Foreign towers at Mackleberg, Hanover and Brandenburg.

Accepted design for the Centennial Baptist Church, Chicago, page 14.

Residence for James Taussig, St. Louis, Mo.; Albert E. Swasey, architect.

Residence for J. Morton, Chicago; Flanders & Zimmerman, architects.

Store building for T. P. Randall, Chicago; Burnham & Root, architects.

Residence for A. W. Chamberlain, Denver, Colo.; Kidder & Humphreys, architects.

Dining-room interior of residence for James McMullen; Irving K. Pond and Allen B. Pond, architects, Chicago.

Two houses for Dr. C. P. Caldwell, Chicago; Burling & Whitehouse, architects; 25 by 45 feet each; cost \$25,000.

Church of St. Joseph, Milwaukee, Wis.; H. P. Schnetzsky, architect. The old church before renovated was 130 feet long by 64 feet wide. It is situated on corner of Cherry and Eleventh streets, and is known to be one of the oldest churches in the city. The renovation was begun in July last year and completed in April of this year. Only the side and rear walls and the roof remained. The entire front wall, including center tower, and the entire auditory and sanctuary ceiling were torn down. A new addition of 20 feet by 77 feet was built in front, consisting of two towers, two stair halls and a center vestibule; both towers are used for side vestibules, with the stair halls between center vestibule and towers. The low shape of the center gable between the two towers was guided by the low pitch of the old roof. The height of the main tower is 160 feet and of the small tower 100 feet. The materials used for the outside of the building were Milwaukee cream-color pressed brick and Ohio buff sandstone. The steeples of towers are slated. The ceiling in sanctuary, vestibule and auditory is arched in Roman arches and elegantly frescoed. The church windows are glazed with lead-mounted Venetian glass. The church and schoolhouse, which stands next to same, are heated by steam, the boiler being situated in the basement of the schoolhouse. The seating capacity of the church is 900. The entire cost of remodeling was about \$50,000.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence at Rochester, N. Y.; H. H. Richardson, architect.

Library in residence; J. Foster Warren, architect, Rochester, N. Y.

Interior library in residence of J. V. Farwell, Chicago; Burnham & Root, architects.

Choir screen in the cathedral at Seville. This screen, a view of a portion of which we give, is the largest piece of ornamental iron work in Spain. Wrought iron and bronze enter into the construction, and the delicacy and charm of the work can only be appreciated as one comes to recognize the excellency of the portraits which are wrought in these lasting metals. The strength of the design in the upper portions is quite as noticeable as is the beauty of the modeling.

Grand Canal, Venice. We present, with this issue, a photogravure of the Grand Canal, Venice, taken at a point just above the Cavilli palace, and looking toward the church of Santa Maria della Salute. The view gives a fair idea of the stateliness of the architecture along this most important of Venetian highways, and at the same time shows the picturesqueness which so continually presents itself in the disposition of even the most important buildings. The brilliant colors, which are lost in the photograph, do much to heighten the picturesque charm.

Houses on Pine street, Philadelphia, for Mr. Alan H. Reed; Brown & Day, architects. These two houses were built during the season of 1888, on a lot 48 feet front. The stone is Indiana limestone. Bricks in first story are Sayer & Fisher's old gold bricks, from Sayerville, New Jersey; the remainder of the front being dark-red Philadelphia "stretcher" brick, a rough hand-made brick. All are laid up in Flemish band. The cornice and bay are of copper. The woodwork, except the oak front doors, is painted in buff and cream white, and the leaded glass set in heavy lead lines, with cast rosettes, painted white on the outside. The interior, with the exception of the halls, which are in oak, is finished in china gloss paint in delicate tints; the parlors being in white and gold. A novelty, so far as Philadelphia is concerned, is the scheme of placing the front steps inside the vestibule. The total cost for the two houses was \$30,000.

Commercial building for L. Z. Leiter, Chicago; W. B. Jenney, architect. The building will be located on the east side of State street, and will extend from Van Buren to Congress street, a distance



of 402 feet. In depth it will extend to the alley 144 feet. It will be six stories or 102 feet above sidewalk in height, and the three street fronts, State, Van Buren and Congress, will be of light-gray New England granite, dressed surface, with carved capitals. It will be thoroughly fireproof; the construction a steel skeleton, the masonry protecting the external columns. This is the system of construction first used in this extensive way by Mr. Jenney in the Home Insurance building in this city, and which has since become so popular for commercial and office buildings, permitting the piers to be cut away to the last limit, namely, an iron column and its fireproofing. On Van Buren street, on the east side of the alley, will be erected another building, 45 feet by 80 feet, in the basement of which will be located the boilers, engines, electric light plant, fuel-rooms, etc., entirely under the direction of the engineer of the building. To secure the full height required in the basement of main building, the drainage will be conducted to a dry well in the basement of the rear building, and will thence be forced into the sewer by automatic ejectors, worked by compressed air. It is intended that the entire building should be one great retail store, as complete and perfect in all its appointments as the resources of modern science and art can make it. Nothing will be omitted that will contribute either to the convenience, the attractiveness, or the substantial character of the building and its appointments. Should the building not be required for a single store, it is arranged so as to be readily subdivided by fireproof partitions into nine or any less number, all supplied from the central plant east of the alley with steam heat, electric lights and elevator service, relieving the tenants entirely from trouble and annoyance, and furnishing this service more satisfactorily and at less cost than could be done from several small plants.

### Mosaics.

ARCHITECT WILLIAM PRETYMAN, of Chicago, has removed his office to the Honore Block on Dearborn street.

MERCHANT & Co., the well-known tinplate importers, have presented the architects of the country with a set of Eiffel tower photographs, consisting of two views of the tower and a sectional diagram.

THE marble that beautifies the entrance to the Chicago Auditorium building is from the quarries of the Blue Ridge Marble Company in Georgia. The company have an office in the Auditorium building, C. N. Martins, agent.

J. E. O. PRIDMORE, of Chicago, has established himself in the practice of architecture at Forty-third street and Cottage Grove Avenue. Mr. Pridmore has been a leading draftsman in Chicago and elsewhere for a number of years.

ARCHITECT R. G. PENTECOST, who commenced suit against Charles P. Packer, president of the Park National Bank, for \$200 for preliminary sketches for a residence he is now erecting on the northeast corner of Grand boulevard and Forty-fifth street, recovered judgment for the full amount in Justice Smith's court, July 15.

IRON lath is used quite extensively in the large cities, and is growing in favor in many of the smaller ones. Quite recently a western architect stated he had introduced it into his practice with much satisfaction, using the Cincinnati Corrugating Company's lath, which, he said, he found was adapted to any kind of furring. This lath, which is a corrugated lath with openings between for "catching" the plaster, can be supplied in lengths from ninety-eight inches up to ten feet, so the company advertises.

THE secretary of the Cincinnati Corrugating Company writes some further particulars in regard to the recent purchase by his company of the machinery, good will, books, etc., of the iron roofing firm of Caldwell & Co. They were engaged principally in the manufacture and sale of the Outcalt patent elastic-joint iron roofing. One of the strong points of this style of roofing is that there are no nails exposed to the weather. The Corrugating Company are now better prepared than ever to turn out this, as well as other improved forms of plain and corrugated roofing, siding, etc., with the greatest promptness, and in the highest state of perfection.

THERE is no better proof needed of the rapid progress of industrial interests in the South than is shown in the growth of the *Southern Lumberman*, published in Nashville, Tenn. From a 16-page edition, about ten years ago, it has constantly grown in size until at present it is the leading and only paper published in the hardwood, cedar and pine section, where the future supply of lumber must largely come from. The current number, dated June 15, contains 64 pages of most interesting matter. Among its contents are descriptions and illustrations of two new inventions in wood-working machinery that will, from their originality and merit, revolutionize, to a great extent, the present methods. One is a process and machine for carving the invention of Dr. C. L. Goehring, which has already been described in these columns. A handsome portrait engraving of the inventor of this wonderful wood-working machine adorns the front page. The other new machine alluded to is one for cutting boards without steaming or other process, directly from the log. It is made by the United States Lumber Cutting Machine Company, Geneva, N. Y. Besides these features, the *Southern Lumberman* contains a large amount of pertinent and valuable editorial matter, reliable market reports from every important lumber market, and has an able and trained corps of correspondents in every locality. In view of the fact that it is the exponent of a vast section of timbered area, it is not surprising to find that almost every reputable manufacturer of wood-working machinery in the United States is represented in its advertising columns. It is published twice a month at Nashville, Tenn.

### New Publications.

NONPAREIL SYSTEM OF HAND-RAILING. By JOHN V. H. SECOR, 5½ by 8½ inches. 78 pages. 157 line engravings. Bound in cloth. Published by The Office Publishing Company. The trade supplied by David Williams, 66 and 68 Duane street, New York. Price, postpaid, \$2.

Mr. Secor is a practical stair-builder of many years' experience, and has put into the little book on hand-railing which he has just issued, an exposition of those principles which he has long employed in his own work. The learner is led step by step from the simplest problems encountered in stair-building to those of the most complex character. The work is preceded by a glossary and is supplemented by a very complete index. A leading feature of the book is the method of ascertaining the length of the mold. The system of bevels presented is also simple and of universal application. The book is adapted to the needs of anyone in the line of joinery who desires molds for any kind of stairs that may have been constructed. The cuts and text are placed side by side, and in all respects the book is arranged in a way to be attractive to the reader and useful to the student.

NOTES ON THE ART OF HOUSE-PLANNING. By C. FRANCIS OSBORNE: W. T. Comstock, New York.

Professor Osborne states in his preface that he embodies a portion of the notes used in his lectures to students in Cornell University, and that his aim has been to set forth only the simplest general principles that govern good planning. In pursuance of this idea, the author analyzes a dwelling house, seeks out and classifies its elements, and enters into a somewhat detailed examination of certain parts. The text contains a discussion of the aspect, the thoroughfares, the dining room, the drawing room, the library, the kitchen, the billiard room, the entrance, and the bedroom floor. What the beginner learns from these chapters will be a part of his alphabet, to be used in the planning of almost every building that he undertakes. With most of the conclusions reached there will be no dispute, and once learned they will not need to be unlearned.

The book is, however, but a fragment, and the topics which the author has arbitrarily chosen to omit are equally essential with those that he has selected for discussion. We are not able to conceive in what way the book would be more confusing or less intelligible to a beginner by the presence of a chapter on the stair hall and staircase, or the conservatory or the laundry; and even after these and other important topics had been dealt with the learner is only brought to the point where he is able to criticize certain sorts of details in a plan set before him ready made; and is not prepared to devise by himself a plan in which these details shall be properly handled, and in devising which he shall look to the house as a whole and shall set about its planning with a view to the limitations imposed by space and position and by the fact that a modern house is built one story upon another, and that economy of construction demands that the stories shall be designed as a unit and not singly nor in pieces. The learner who buys this book for an aid in learning to plan must forthwith buy another before he can use what is here taught. In fine, what the book contains is well enough as a part of a course of lectures or as a fragment of a book; but it has no such value taken alone as to afford a sufficient reason for its publication in its present shape. To have made the volume more nearly complete would not have hindered the learner, and would have given to the entire work a value that by no means attaches in like proportion to this fragment.

### Building Outlook.

OFFICE OF THE INLAND ARCHITECT, }  
CHICAGO, August 10, 1889. }

The general tenor of advices from all manufacturing and commercial centers is indicative of an advancing tendency in prices, an increasing demand, and greater purchasing power upon the part of the public. Builders, and manufacturers of building material, are crowded with work in all sections of the Union. In the South there is no cessation of the projection of new enterprises, or prosecution of work. A great many new factories are being built there, called for by the demand for factory products. New furnaces are being built, iron mills are being talked of, and factory and shop capacity of a hundred different kinds are to be rushed to completion as fast as possible. Almost as much activity is in progress in the North; but the bulk of the work throughout the northern states is in the way of extensions to already existing plants. This year has been a phenomenal one for building. All of our larger cities show an increase over last year. The croaking element is expressing the opinion that this thing is being overdone; that enterprise is overdoing itself in this direction; and this may be true; but enterprise has not yet sounded the alarm.

Lumber is in abundant supply everywhere, and at prices which do not check demand. Iron and steel products are slightly higher, but not sufficiently so to interfere with builders' calculations. Railroad construction is not exceeding that of last year. The general distribution of products is stated to be twelve per cent ahead of the same time last year, and the weekly and monthly reports show that this estimate is not far from correct. The mining interests are prosperous, but wages are low, and competition resulting from the development of new deposits is very sharp.

Financial centers show both an upward and downward tendency; but there is nothing to alarm the conservative element. Trusts and syndicates are furnishing the daily newspaper press with materials for stirring and alarming editorials; but the conservative sentiment of the country is not disturbed at the possibility of harm that may grow out of these combinations and the application of foreign capital to the development of manufacturing interests in America.

Labor is not disposed to enter into any further contests this year. Whatever conflicts are brewing will not take shape until next spring. Capital has carefully studied the future of the labor question with special interest, and the wiser heads are inclined to the belief that the labor organizations, or the leaders, have become too intelligent to precipitate a national contest where the chances of success are so scant.



## Synopsis of Building News.

**Aurora, Ill.**—Architect J. E. Minot: For Henry Ryan, residence; cost \$8,000. For Geo. E. Sutphan, residence; cost \$5,000. For C. F. Hageman, residence; cost \$7,000. Schoolhouse; cost \$5,000.

**Chicago, Ill.**—Architects Greisser & Martzen have prepared plans for a brewing plant for the American Brewing Company, comprising a brew, malt and wash house, boiler room, ice house, shipping house, etc., covering an area 961 by 162 by 44 feet, with barn 75 by 44 by 82 by 78 feet, three stories in height; brick, stone and iron will be used in the construction; estimated cost with necessary machinery \$250,000.

Architect Titus Diethelm (South Chicago): For Pitale Brothers, two-story and basement building, 50 by 80 feet, with two-story barn; brick; cost \$15,000. For Nelson, Morris & Co., three-story and basement building, store and flats; cost \$15,000. For Henry Schrayner, Whiting, Ind., two-story store building, 22 by 60 feet; frame; cost \$1,800. For R. Davis, three-story and basement hotel building, 25 by 100 feet; cost \$12,000. Alterations in Bowen School building; cost \$2,000.

Architect C. L. Stiles have prepared plans for a two-story six-room schoolhouse, to be built at River Forest; pressed brick with stone and terra-cotta trimmings; cost \$18,000.

Architect A. L. Schellenger: For W. H. Krauskopf, two-story and basement residence, 37 by 38 feet; Bedford stone, hardwood finish, steam heat and modern appliances; cost \$10,000.

Architects Geyer & Randak have prepared plans for a seven-story and basement office building, 50 by 90 feet, to be erected on Dearborn, between Harrison and Polk streets; estimated cost \$55,000.

Architect I. Zarbell has prepared plans and taken figures on a three-story and basement apartment building, 42 by 72 feet, to be built by J. T. Robinson, on Winchester avenue; cost \$14,000.

Architect J. H. Wagner: For Houghteling & Caruthers, two two-story and basement flat buildings, 62 by 100 feet, and 25 by 100 feet; St. Louis pressed brick with terra-cotta trimmings, steel beams and girders will be used in the construction; the foundations will be made sufficiently strong that five additional stories can be added when the demand calls for them; cost \$35,000.

Architect C. O. Hansen: Vault and chapel to be built at Mount Olivet cemetery; rock-faced stone; chapel 25 by 25 feet; vault 24 by 76 feet. For A. Wiegand, three-story and basement flat building, 25 by 56 feet, brick and stone; mantels, hardwood finish, electric work, ornamented glass, etc.; cost \$7,000.

Architect W. Ohlhofer: For M. Friend, three-story and basement store and flat building; cost \$20,000.

Architect J. A. Thain: For E. Uling, Hyde Park, three-story residence, 37 by 83 feet; brick and stone, slate roof, stained glass, mantels, hardwood finish, steam heat, electric work, etc.; cost \$25,000.

Architect Perley Hale: For L. A. McDonald, four-story flat building, 55 by 100 feet; first two stories brownstone, remaining stories pressed brick; cost \$50,000. For I. I. Phillips, three-story and basement flat building, 44 by 46 feet; brownstone and dressed brick; cost \$18,000.

Architect W. W. Boyington: For N. D. Mooney, two-story store and flat building, 65 by 75 feet; pressed brick and stone; cost \$18,000. For S. H. Gardner, three-story flat building, 25 by 62 feet; stone front, furnace heat; cost \$10,000.

Architect F. B. Townsend: Making sketches for three-story and basement store and flat building, 18 by 99 feet; brick and stone; cost about \$10,000.

Architect H. B. Wheelock: Planned Congregational Church building for Decatur, Ill.; brick and field stone, slate roof, stained glass, etc.; cost \$25,000. Also plans on the boards for an elegant residence to be erected in Bloomington. It will be two stories, attic and basement high. The outer walls will be of stone and brick with slate roof; will be warmed by steam and hot water; cost \$32,000. Also planning a three-story apartment house, 80 by 100 feet, to be built on the South Side; pressed brick and stone; cost \$32,000.

Architects Edbrooke & Burnham: For O. A. Hoppe, Riverside, two-story residence, 32 by 38 feet; basement stone, balance frame; mantels, bathroom, stained glass, hot-water heat; cost \$5,000. For F. W. Green, Woodlawn, two-story building, 31 by 50 feet; frame; mantels, bath, stained glass, furnace heat; cost \$5,000.

Architect J. H. Huber: For Charles Stembreich, eight three-story flats; pressed brick, stone, terra-cotta; cost \$50,000.

Architect F. Fochringer: For Henry Dirke, four-story and basement store and flat building, 124 by 60 feet; St. Louis pressed brick, with Portage brownstone trimmings, copper bays and cornice, wood mantels, hardwood finish, etc.; cost \$35,000.

Architect C. J. Warren: For J. F. Runey, two-story basement and attic residence, 40 by 100 feet; St. Lawrence granite front and side, mosaic floors, marble work, antique oak finish, steam heat, electric lighting; cost \$50,000. For same party, two six-story and basement flat buildings, 50 by 125 feet each; Anderson pressed brick and stone, hardwood finish, bathrooms, mantels, elevators, steam heat and all modern conveniences; cost \$150,000. Plans for a two-story summer residence in the old colonial style; cost \$10,000.

Architect T. Lewandowski: For National Brewing Co., brewing plant, comprising brew, boiler and malt house; brick, stone and iron; cost with machinery, \$45,000.

Architect A. Druiding: Two-story Bohemian R. C. church and school building, 35 by 65 feet; common brick; cost \$10,000.

Architect T. M. McCarthy: For O. M. Power, seven-story office and college building, 38 by 171 feet; pressed brick, stone and terra-cotta, elevators, steam heat, electric lighting, etc.; cost \$200,000.

Architects Flanders & Zimmerman: For C. E. Pope, nine-story warehouse, 76 by 180 feet; granite and pressed brick, hardwood finish, iron shutters and stairs, vaults, fire escapes, elevators, etc.; cost \$300,000. For B. F. Fessenden, seven-story business building, 51 by 76 feet; pressed brick and terra-cotta, elevators, steam heat, etc.; cost \$75,000. For A. Dickinson, two-story flat building; pressed brick and stone; cost \$7,000.

Architect H. B. Seeley is making plans for a three-story and basement store and flat building, 100 by 80 feet, Col. L. A. Pierce, owner; stone and brick exterior, gravel roof, mantels, dumb waiters, plate, ornamental and beveled glass, skylights, hardwood finish, etc.; cost about \$60,000. For Dr. A. P. Gilmore, six-story flat building, 130 by 175 feet; pressed brick, with stone trimmings, mantels, dumb waiters, electric bells, steam heat, hardwood finish; cost \$60,000.

Architect W. H. Drake: Four-story and basement flat building at 336 Indiana street, 25 by 83 feet; pressed brick and stone; cost \$10,000.

Architect L. B. Dixon: For E. S. Lloyd, three-story residence, 25 by 80 feet; brick and stone, hardwood finish, electric work, tile floors, hot-water heat, plate glass, mantels, etc.; cost \$15,000. For W. D. Bishop, flat building; cost \$25,000.

Architects Chapie & Fry: For G. H. Teed, nine cottages; Anderson pressed brick, stained glass, etc.; bathrooms, etc.

Architects Ostling Bros.: For Joseph Hocke, two-story, basement and attic flat building, 24 by 70 feet; pressed brick and stone, mantels, baths, etc.; cost \$6,000.

Architect H. Raeder: For C. P. Mitchell, at Evanston, two-story and attic residence, 40 by 54 feet, with barn; artesian stone front; wide ornamental plaster frieze, hardwood and pine finish, mantels, plate and ornamental glass set in lead, hot water, etc.; cost \$150,000. For S. L. Williams, three-story and basement residence; first floor front, brownstone; rest, Roman tile with brownstone trimmings; Spanish tile roof, hardwood finish, plate glass, mantels, etc., furnace heat; cost \$8,000.

Architects Marble & Lambson have planned a seven-story sub-basement and basement manufacturing building, to be erected on Jackson and Canal streets, 140 by 160 feet; brick and stone; slow burning construction; cost \$175,000.

Architect Jul de Horvath (Englewood): For self, at Auburn Park, two-story residence, 37 by 52 feet; frame, basement Indiana custone, slate roof, plate glass, hardwood finish, old copper hardware, sanitary plumbing, steam heat, etc.; cost \$15,000. For W. C. Wright, Auburn Park, two-story and basement frame residence, 21 by 42 feet; cost \$3,500. For T. C. Wayman, Auburn Park, two-story and basement frame residence, 24 by 36 feet; cost \$3,000. For G. I. Andrews, Auburn Park, two-story and basement frame residence, 24 by 45 feet; cost \$4,000. For W. L. Bender, Spencer, Ill., two-story frame residence, 24 by 45 feet; cost \$4,000. For H. L. Starke, Auburn Park, three-story store and flat building, 50 by 64 feet; stone, with galvanized iron trimmings, plate-glass fronts; cost \$13,000. For T.

Ryan, same place, store and flat building, 25 by 68 feet; pressed brick and stone, plate-glass fronts; cost \$6,000. For W. H. Reed, same place, two-story and basement frame residence, 24 by 36 feet; cost \$3,000. For Geo. Jennings, same place, two-story and basement frame residence; basement stone, roof slate, plate glass, hardwood finish; cost \$5,000. For School District No. 4, same place, on Wright street, two-story and basement eight-room schoolhouse, 70 by 85 feet; Rutan heating, hardwood finish; cost \$25,000. For same district, on Harvard street, two-story and basement schoolhouse, 65 by 65 feet; brick, with stone trimmings, stone basement, Rutan heating, hardwood finish; cost \$15,000. For same district, on Emerald avenue, two-story and basement schoolhouse, 65 by 65 feet; brick, with stone trimmings, stone basement; cost \$15,000. For T. L. Talbot, same place, two-story and basement frame residence, 24 by 43 feet; stone basement; cost \$3,500. For T. M. Norris, same place, two-story and basement frame residence, 27 by 53 feet; stone basement, hot-water heat, hardwood finish; cost \$7,000. For C. N. Norris, same place, two-story and basement frame residence, 24 by 50 feet; stone basement, hardwood finish on first floor; cost \$4,500.

Architects Cole & Dahlgren: For George Gunther, two-story store and flat building, 24 by 80 feet; pressed brick, with stone trimmings; plate glass, and modern fittings; cost \$4,000.

Architect J. A. Bongard: For J. Ludwic, two-story and basement residence, 29 by 54 feet; St. Louis pressed brick and buff Bedford stone, plate and stained glass, oak finish, furnace heat; cost \$6,000.

Architect F. H. Starbuck: For H. A. Chapin & Son, three-story and basement block of stores and flats; Anderson pressed brick and blue Bedford stone, steam heat, elevators, etc. Also Universalist Church building for Waterloo, Iowa, 30 by 45 feet; veneered brick, stained glass, etc.; cost \$5,000.

Architect M. E. Bell: For I. P. Smith, residence; pressed brick and stone, marble wainscoting, steam heat, etc.; cost \$15,000.

Architect J. F. Warner: For E. Ellis, three-story flat building; St. Louis pressed brick and Bedford stone; cost \$8,000.

Architect E. E. Snyder: For H. C. Smith, Woodlawn, two-story, basement and attic dwelling, 32 by 35 feet; frame; basement stone, bath, stained glass, furnace, etc.; cost \$5,000.

Architect W. J. Van Kernen: For Dr. H. S. Brown, two-story, basement and attic residence, 40 by 62 feet; Berlin granite front and sides, stained and beveled glass, mantels, variety hardwood finish, electric lighting and all modern improvements; cost \$50,000.

Architects Charnley & Evans: To be erected at Longwood: For E. S. Pike, two-story store and flat building. For L. Heuhn, two-story and basement building. For Mrs. I. H. Clark, dwelling. For Dr. W. W. Curtis, to be built on Washington Boulevard, residence. For P. Fox, on State street, store and flat building. For E. P. Hillard, two dwellings; cost \$10,000. For Mrs. Baker, two-story and basement residence.

Architect S. V. Shipman: For T. J. and J. J. Emery, four-story store and flat building, 25 by 85 feet; pressed brick and stone; cost \$15,000.

Architect W. Thomas: For M. F. Ervin, two-story flat building; brownstone front, hardwood interior, furnace heat, etc.; cost \$10,000.

Architect J. W. Ackermann: For Charles Elliott, four-story store and flat building, 50 by 65 feet; pressed brick and stone; cost \$15,000.

Architect W. G. Barfield: For Dr. D. W. Taylor, residence, stone exterior, modern improvements; cost \$10,000.

Architects Fromman & Jebson: For G. L. Peterson, five-story and basement factory building, 80 by 102 feet; common brick with pressed brick trimmings, elevators, steam heat, electric lighting, etc.; cost \$25,000.

Architect W. L. Carroll: For Alice M. Kirby, four-story store and flat building, 40 by 97 feet; buff Bedford stone; cost \$18,000.

Architects Bell & Swift: On the boards for estate of Cyrus H. McCormick, at Indianapolis, four-story warehouse and office building, 50 by 107 feet; pressed brick, stone and terra-cotta, iron beams and columns, steam heat, electric lighting, elevators, plate glass; cost \$20,000. For P. Owsley, three-story residence, exterior solid red brownstone, pressed and molded brick; interior finish, oak. For J. G. Owsley, two-story flat building.

Architect E. Steude: For Ald. Sanders, three-story and basement store and flat building, 20 by 130 feet; pressed brick and stone; cost \$10,000. For Mr. Naden, block of two-story and basement stores and flats, 80 by 86 feet; pressed brick and stone; cost \$15,000.

Architects I. K. and A. B. Pond, two-story residence, at Riverside, for Frank F. Reed; first story, stone; above, frame; furnace heat and modern conveniences; cost \$6,000.

Architect J. E. Scheller: Store and office building, at 176 West Madison street, four stories and basement, 21 by 100 feet; pressed brick and Portage stone; cost \$23,000.

Architects J. M. Van Osdel & Son: For C. C. Heisen, twelve-story office building; first three stories, buff Bedford stone; above, gray Anderson brick with Bedford stone trimmings; steam heat, electric lighting, elevators, fireproofing, etc.

Architects Theil & Lang: For W. Runde, four-story store and flat building, 50 by 84 feet; St. Louis pressed brick with Euclid stone trimmings; wood mantels, hand-elevators, bathroom, hardwood finish, etc.; cost \$15,000. For Edward Stopp, two-story and basement flat building, 50 by 65 feet; pressed brick and stone; cost \$7,000.

Architect A. Boos: For Lake View R. C. St. Alphonsos Society, church edifice, brick and stone; stained glass, etc.; cost \$30,000.

Architect H. B. Wheelock: For Congregational Society, Decatur, Ill., church building, 72 by 172 feet; Old English style, pressed brick and fieldstone, slate roof; seating capacity, 450; Sunday-school room and pastor's study at the rear; cost \$25,000. For W. D. Mooney, three-story store and flat building, 25 by 55 feet; pressed brick and stone.

Architect M. L. Beers has plans underway for four school buildings to be built at Memphis, Tenn., at a cost of about \$100,000. Also alterations in the school building at Blue Island, to cost \$10,000. Has made plans for Mrs. T. A. Banning for a two-story and attic residence; stone front, hardwood interior, hot-water heat, etc.; cost \$12,000. For H. Harwood, three-story basement and attic residence; first story stone, balance frame. For F. E. Lindsay, Waukegan, Ill., residence.

**Cincinnati, Ohio.**—Reported by Lawrence Mendenhall.

In casting my reportorial telescopic sight over the mercantile landscape, I can see but very little change in the position of affairs. It is therefore safest not to try to spin a yarn unless you have material with which to do it.

The town of Addyston, the Pullman of Cincinnati, with its immense iron and pipe foundry, is quite active in the building line; over forty buildings (houses) have been erected there this season. There is now in process of erection a fine station, hotel and store. The hotel and store, as well as the large works, were erected from designs and under the superintendence of Mr. John H. Boll, who succeeded to Mr. Geo. W. Rapp's architectural business.

Our sketch club is progressing in a highly creditable manner, reflecting credit upon its officers, as well as members. The latest project is to hold a national club exhibition, in which, it is hoped, will be found contributions from not only every club, but from the celebrated older architects.

The art museum has thrown open its doors, and how appropriately, too, for architecture is a full sister of art, and therefore entitled to as good quarters.

If properly managed this exhibition can produce great good, and stimulate healthy rivalry between the different clubs. Mr. G. W. E. Field will give all desired information.

Adam J. Bast has his hands full; reports for Miss Belle Higgins a two-and-a-half story frame house of ten rooms, pine finish, plumbing, blinds, tin and slate roof; cost \$3,000. For David Lakamp, city, a two-and-a-half story frame residence; pine finish, grates, wood mantels, plumbing, tin roof, etc.; cost \$4,000.

Samuel Hannaford & Sons report their time well employed, and among others have drawn the following plans for the parties named: For Wm. C. Lawson, Esq., a brick and timber residence, two and a half stories; twelve rooms, hardwood, plumbing, heat undecided, stained glass, electric bells, slate roof. For W. H. Soale, Esq., Terre Haute, Ind., a pressed-brick residence, ten rooms, hardwood, plumbing, furnace heat, stained glass, electric bells, slate roof. For Mrs. Eliza Fasse, a row of stores and flats, four stories; pressed brick, pine finish, grates and stoves, also steam, slate and tin roof. For Alms & Doepke Co., an extensive addition to store, 75 by 102; five stories, brick, hydraulic elevators, steam heat, electric work, slate roof. Wyoming high school, Wyoming, Ohio; a brick building, 84 by 40, three stories high, tin roof, hot-air heat; furniture needed, desks. This firm has also prepared plans for a new water tower and



pumping works for the city water works. Full particulars obtained from the architects and board of public affairs. They will be quite extensive buildings.

Gustave W. Drach, architect, has prepared a very pretty plan for a residence for Mrs. Wm. Stichtenoth; brick, two and a half stories, pine finish, twelve rooms, furnace, mantels, stained glass, laundry and plumbing fixtures, slate roof, etc.; cost \$5,000. Mr. Drach does good work.

John H. Boll has the plans for a residence for W. W. Cunningham, to be of brick, pine finish, hot-air heat, plate and stained glass, wood mantels, slate roof, etc.; cost \$8,500.

G. & A. Brink report, among other plans, one for the Carrollton Furniture Co., Carrollton, Ky., for a warehouse, 60 by 120 feet; two stories, tin roof, pine finish, steam heat, etc.; cost about \$5,500. For Wm. Schneider, Esq., a pressed-brick residence; twelve rooms, pine finish, iron mantels, stained glass, tin roof, etc.; cost \$4,500.

Architect Louis Picket has drawn plans for a house for Mrs. Margaret Renke; brick, two and a half stories, pine finish, stained glass, wood mantels, plumbing, slate roof; cost \$4,000. Also for St. Bernard, Ohio, a town hall and engine house; three stories high, size 58 by 88, brick, furnace heat, hardwood, electric bells, tile floors, mantels, plumbing, tin roof, stable fittings, etc.; cost \$12,500.

J. W. McLaughlin has started on the plans for the Y. M. C. A. building to be erected here; size 75 by 90 feet, five stories high, of brick and stone, furnaces, office fixtures, plate and stained glass, electric work, hardwood finish, etc. Besides this there will be a fully-equipped gymnasium, bath and reading rooms, as well as a large association hall. The secretary will give full information. Probable cost \$100,000. When completed it will be a most valuable architectural addition to our city, and be equal to any in the United States. For Cincinnati Electric Light Co., care Andrew Hickenlooper, president, a complete plant, 77 by 75 feet; three stories high, of brick; in this building will be needed asphalt, dynamos, boilers, iron vaults, etc.; cost about \$30,000.

Architect H. E. Siter has prepared plans for a row of four houses for C. H. Glandorf, on Price Hill; brick (pressed, probably), two and a half stories high, pine finish, slate roof, blinds, mantels and grates. It will make a very picturesque row when built, and add to the architect's reputation.

**Cleveland, Ohio.**—Architect T. C. Bates: For Charlotte Evans, two-story store and flat building, 38 by 49 feet; frame, composition roof, bathrooms, gas fixtures, common and plate glass, hot water heat, hard and softwood finish; cost \$4,000.

Architects Cudell & Richardson: For the Cleveland Varnish Company, two-story factory works, 30 by 111 feet, common brick and stone, elevators, etc.; cost \$18,000.

Architect L. P. Eldridge: For the Bethel Union, three-story office, factory and lodging building, 50 by 140 feet; pressed brick, gravel roof, steam heat, gas fixtures, softwood finish; cost \$10,000.

Architect H. G. Slatmeyer: Power house for Street R. W. Company, 49 by 46 feet; common brick; cost \$5,000.

**Findlay, Ohio.**—Architect C. E. Buhl: Two-story residence, 30 by 44 feet; frame, shingle roof, wood cornice, mantels and grates, common and stained glass, bath room, plumbing, oak and pine finish; cost \$3,000.

Architect E. J. Rambo & Co.: For Perkins, Campbell & Co., seven-story factory building, 29 by 87 feet; brick with stone trimmings, iron columns and beams, fireproofing, elevators, steam heat, etc.

Architect C. A. Bassett: Two-story residence, 30 by 40 feet; frame, slate roof, wood cornice, natural gas grates, gas fixtures, wood mantels, plumbing, oak, ash and pine finish; cost \$3,000.

The Harper Bottle Company will erect an \$8,000 factory, to be of common brick, have galvanized iron roof and cornice and iron stairs and shutters. The Findlay Church Furniture Company will build an \$8,000 addition to their works.

**Freeport, Pa.**—Guckenheimer & Bros., distillers, intend rebuilding their distillery, recently burned. The new building will be 50 by 100 feet, five stories high and built of brick.

**Kansas City, Mo.**—The aggregate amount of estimated cost for permits taken out during the month of July is \$1,075,556, plainly showing the activity in building circles this season. On the last day of the month the city voted to issue bonds to the amount of \$500,000 to build a new city hall and public sewer.

Architects Van Brunt & Howe have the plans for a \$60,000 theater and office building, to be built on Walnut and Seventh streets, by D. T. Keller; it

will have a ground area of 46 by 102 feet; common and pressed brick will be used in exterior construction.

Architect D. Underwood has made plans for a \$12,000 amphitheater, to be built by the Kansas City Driving Park Association; it will have a seating capacity for 20,000 people.

Architect I. H. Hill has designed plans for M. H. Hudson for a four-story warehouse, 64 by 120 feet; brick, granite and stone will be used in construction; the cost will be about \$18,000.

**Lawrence, Kan.**—Architect J. G. Haskell has made the plans for church building for the M. E. Society. It will be one story, 95 by 117 feet; stone construction, slate roof; cost about \$30,000.

**Marquette, Mich.**—Architects Scott & Charlton: For A. Mathews, two-story and basement residence; first story cutstone, second story redwood shingles, slate roof, steam heat, etc.; cost \$14,000. For Waynette school board, two-story and basement school building; cutstone, zinc and slate roof, furnace heat; cost \$18,000. Projected: For state board prison commissioners, barn, ice house and halls for house of correction.

**Meridian, Miss.**—Architect A. W. Maas: For A. Rosenbaum, three-story store building, 24 by 75 feet; pressed brick, shingle roof; galvanized iron cornice, iron columns, plate glass, electric lighting, etc.; cost \$10,000.

**Muncie, Ind.**—Architects La Belle & Koenig report five business blocks for Mr. Jas. Boyce, for C. E. Adamson, fourteen-room residence, for T. Neily, eight-room residence, for C. Busch, seven-room residence, for J. K. Ritter, six-room residence, for J. O. Lewellen, eight-room residence, for J. O'Mara, six-room residence. All the above residences frame.

**McKeesport, Pa.**—The directors of the Bank of McKeesport awarded to Daniel Stratton the contract for the construction of their new five-story building, to cost over \$75,000. The school board has decided upon the erection of another school building of two stories and thirteen or fourteen rooms. The cost will exceed \$30,000.

**Palmira, Mo.**—Architect E. Eake: For D. O. Lane, residence, 32 by 45 feet; frame, shingle roof, outside blinds, wood cornice, iron crestings, mantels and grates, common and stained glass, plumbing, etc. Planning warehouse 40 by 80 feet, to be covered with corrugated iron.

**Pittsburgh, Pa.**—Architect C. W. Hodgdon has prepared plans for two handsome frame residences, to be erected on Evaline street by G. H. & W. Radcliffe; also for a residence at Jeanette for Wm. Elkin.

Architect F. C. Sauer has finished plans for a fine brick, stone-trimmed residence, to be erected on Linden avenue by Dr. F. L. Slocum; also for a frame dwelling for Mary Gollinger.

Architect S. T. McClarren has made plans for a frame dwelling for W. R. Armstrong, at Shadyside; for a brick dwelling on Baum street for E. M. Myers; for a handsome frame residence for E. E. Dearborn, at McKeesport; for a frame residence for Dr. S. P. Waugaman, at McKeesport; for a new M. E. church in Beulah Park, McKeesport; for a frame dwelling for William M. Bell, at Shadyside; for twenty frame houses for Charles E. Cornelius, to be erected on the Morningside road.

There was a total of 327 permits taken out during the month of July at an aggregate estimated cost of \$1,008,495. Of the number 171 were for brick, 150 frame, 2 stone and 4 iron structures.

The record for the first seven months of the year, give a total of 750 brick, 924 frame, 12 stone and 14 iron structures, at an aggregate cost of \$3,489,978.

**Rockford, Ill.**—Architects G. Bradley & Son: For E. G. Nelson, one and a half story residence, 28 by 46 feet; frame, shingle roof, bathroom, furnace heat, softwood finish; cost \$1,800. For C. E. Herrick, two-story residence, 30 by 52 feet, frame, shingle roof, wood mantels, bath, common and plate glass, softwood finish; cost \$4,500. For A. Cass, Rochelle, Ill., two-story residence; frame, shingle roof, bathroom, laundry, wood mantels, common, plate and stained glass, gas fixtures and machine; steam heat, hard and soft wood finish; cost \$7,500. For M. S. Parmlee, two-story residence, 34 by 49 feet; frame, shingle roof, mantels, bath, gas fixtures, common and plate glass, softwood finish; cost \$3,500. For W. Kimball, two-story residence, 34 by 49 feet. For B. F. Davis, Fernwood, Ill., three cottages; cost \$4,500.

## Trade Notes.

The Western Mineral Wool Company has removed its headquarters in this city to No. 121 Lake street. The interested, as Captain Cuttle would say, should "make a note on't."

The New Jersey Wire Cloth Company, of Trenton, N. J., has just issued a "fold circular" with the following title, "Practical Tests of the Patent Stiffened Fireproof Wire Lathing." It contains several public test reports of the fireproof qualities of this special lathing material which is of interest to such architects, builders and owners as are unacquainted with its merits, and would be pleased to adopt in their practice, construction and use, a cheap general safeguard against fire. This lathing is well established in the market, and is in daily use, east, west, north and south.

The following circular from Zimdars & Hunt, New York, is so clearly descriptive of Zimdars' patent air bells that it is published in full for the benefit of our readers: "The very idea of being able to ring a bell, say 250 feet away, by air only, seems almost impossible unless associated with large tubes and a cumbersome pumping machine. Nevertheless, it is an accomplished fact; our patent pneumatic or air bells are now fitted up in some of the finest apartment houses, with nothing but a small push button and an elegant bell and annunciator case visible. The push button contains a small rubber ball or air holder, and is connected with the bell or annunciator by means of a lead tube so small as to resemble an electric-light wire, and which can be bent around corners or pushed through small holes in floors or walls as easily as an ordinary bell wire, the number of bends or turns making no difference whatever to the ringing of the bell. On pressing the button the air is conveyed through the small tube to the bell and annunciator, and never fails to ring and indicate the name or

number of room from which a call is made. The advantage of this system over the old methods will at once be seen. The pneumatic bell is easily fixed by any person of ordinary intelligence. It cannot get out of order, as there are no wires to stretch, no cranks to get loose, no batteries to maintain. For elevators our patent flexible cable is used, thus insuring a thoroughly reliable system of communication between the different floors and the elevator car while in motion. These bells are now used on the finest ocean steamships, and are being recommended and adopted by the leading architects and builders for hotels and private residences."

The Thorn Shingle and Ornamental Co., of Philadelphia, have issued their illustrated catalogue for 1889. It is known to the great majority of architects and builders, perhaps, that the specialties of the company are the "Thorn metallic roofing tiles, hip rolls, ridgings, crestings, finials, etc.," and that they have won a deserved popularity. To those who are unacquainted with their manufactures, and who would like to find an economical and durable roofing material, lighter than slate or tile, they will find in the Thorn metallic tile and shingles the very thing they are searching for, and a most excellent substitute for either slate or tile. Address the company for particulars.

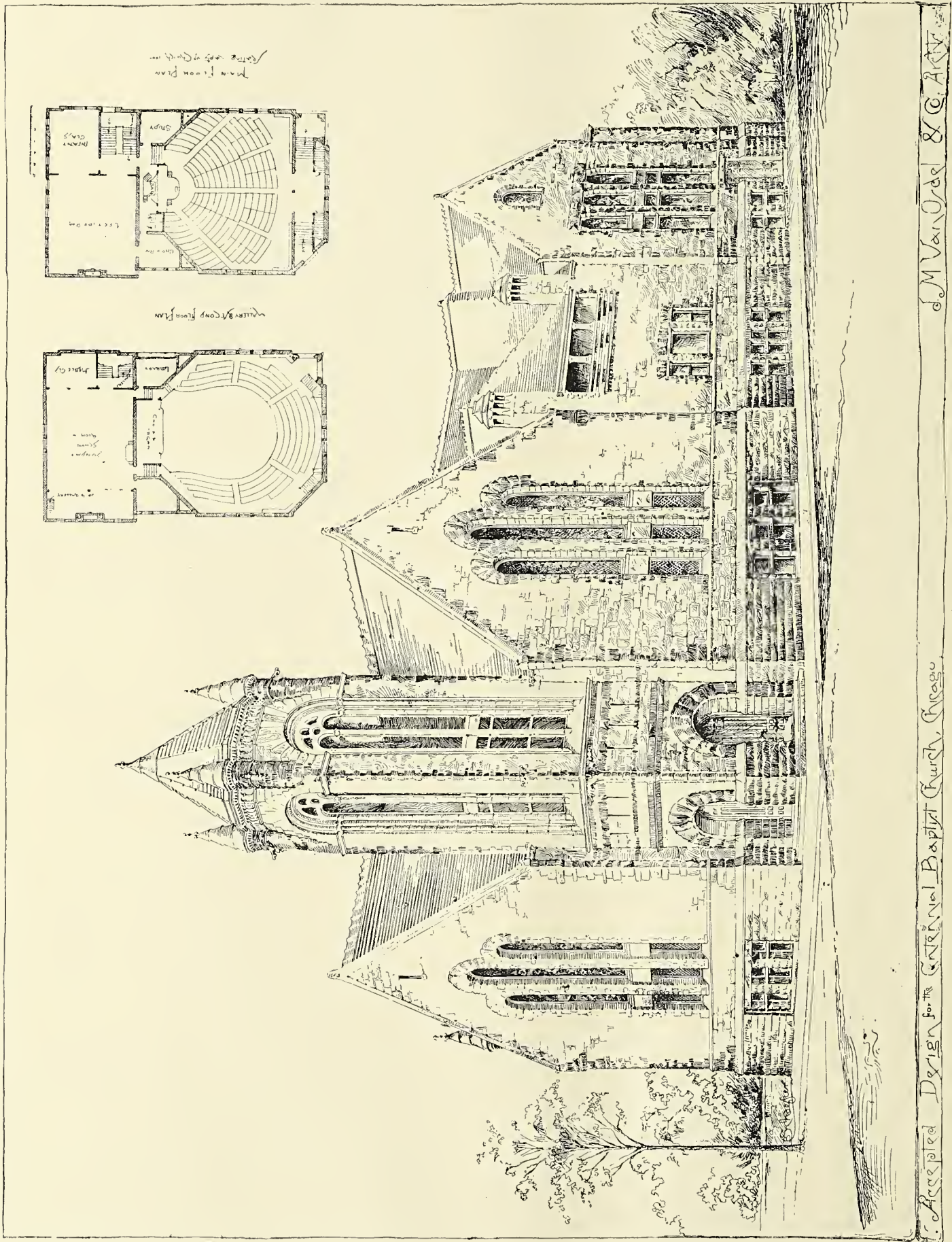
The matter of steam heat is one that enters into the details of a large number of buildings, both public and private, in these latter times, and the indications point to a still larger application of steam in this direction in the future. A steam generator, therefore, is of no small consequence and should be thought of as requiring three essentials, viz: Compass, safety and economy. The Harrison Safety Boiler, manufactured at Germantown, Pa., possesses these requisites, according to the testimonials of experts and users, in an eminent degree, and it would not be amiss for architects to

investigate these claims and to remember them in times of need, should the enviable reputation of this steam generator be sustained by the investigation.

The convenience of a dumb waiter in a large residence, to say nothing of restaurants, is an admitted fact, but until recently no improvement over the old-time, immemorial style of a box, a rope and a weight, was thought of. But times change and improvements have come with the change, even to the dumb waiter. One of the most conspicuous is the "Wheeler improved dumb-waiter," which is being introduced into all well-planned dwellings. The same principle is also extended to a hand elevator for carrying persons—carrying up to three persons, something to be considered when an elevator is desired and the more expensive power elevators call a halt on account of price. Particulars of the "Wheeler" devices can be learned by addressing H. H. & C. L. Munger, 142 Lake street, Chicago.

"INGENIOUS" plumbers' supplies do not always have staying qualities, however appearances may be to the contrary, as those who have tested new-fangled apparatus can testify to; but there are others that more than fulfill their promises. There are two being introduced on the market by Mr. Clarence M. Kemp, of Baltimore, Maryland, that, unless testimonials of those who have tested them are untrustworthy, come within the latter class. One, the "Climax Soilpipe Plug," so simple that an inexperienced lad may apply it in a few minutes, and adapted to any character of pipe, and the other the "Climax Sewer-gas and Back-water Trap," a simple device, and one that cannot fail to be effective. It is easily accessible, but is so designed that filth or sediment cannot find lodgment. These are but two among other equally meritorious supplies Mr. Kemp manufactures, which his circulars disclose, and to which the interested are directed.

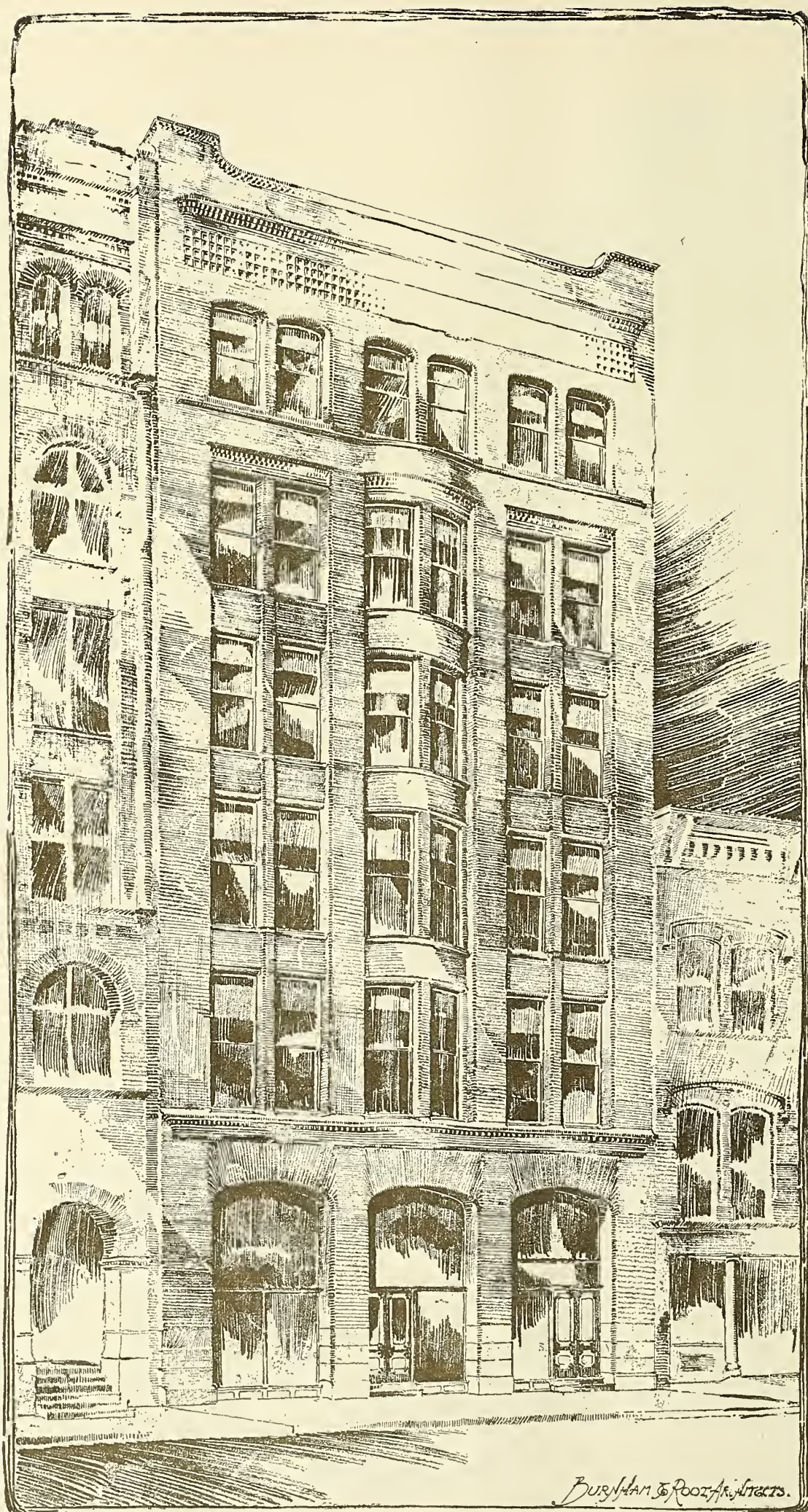












STORE BUILDING FOR T. P. RANDALL, CHICAGO.

BURNHAM & ROOT, ARCHITECTS.

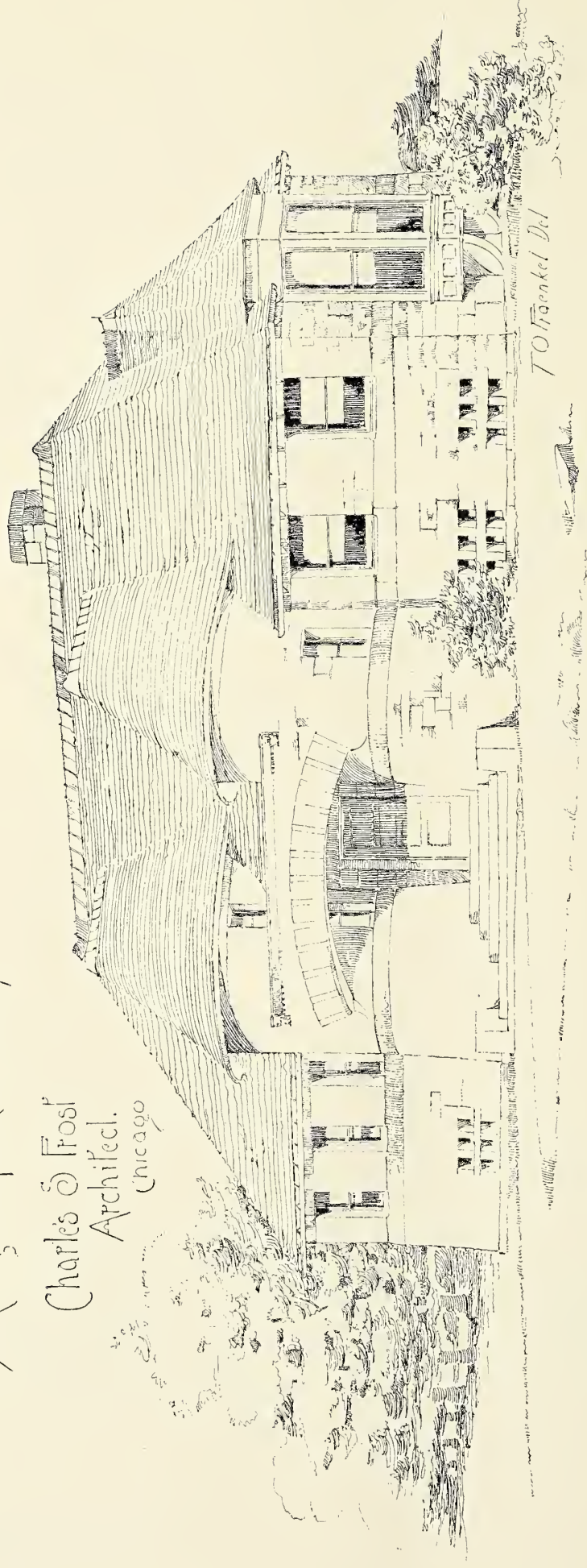






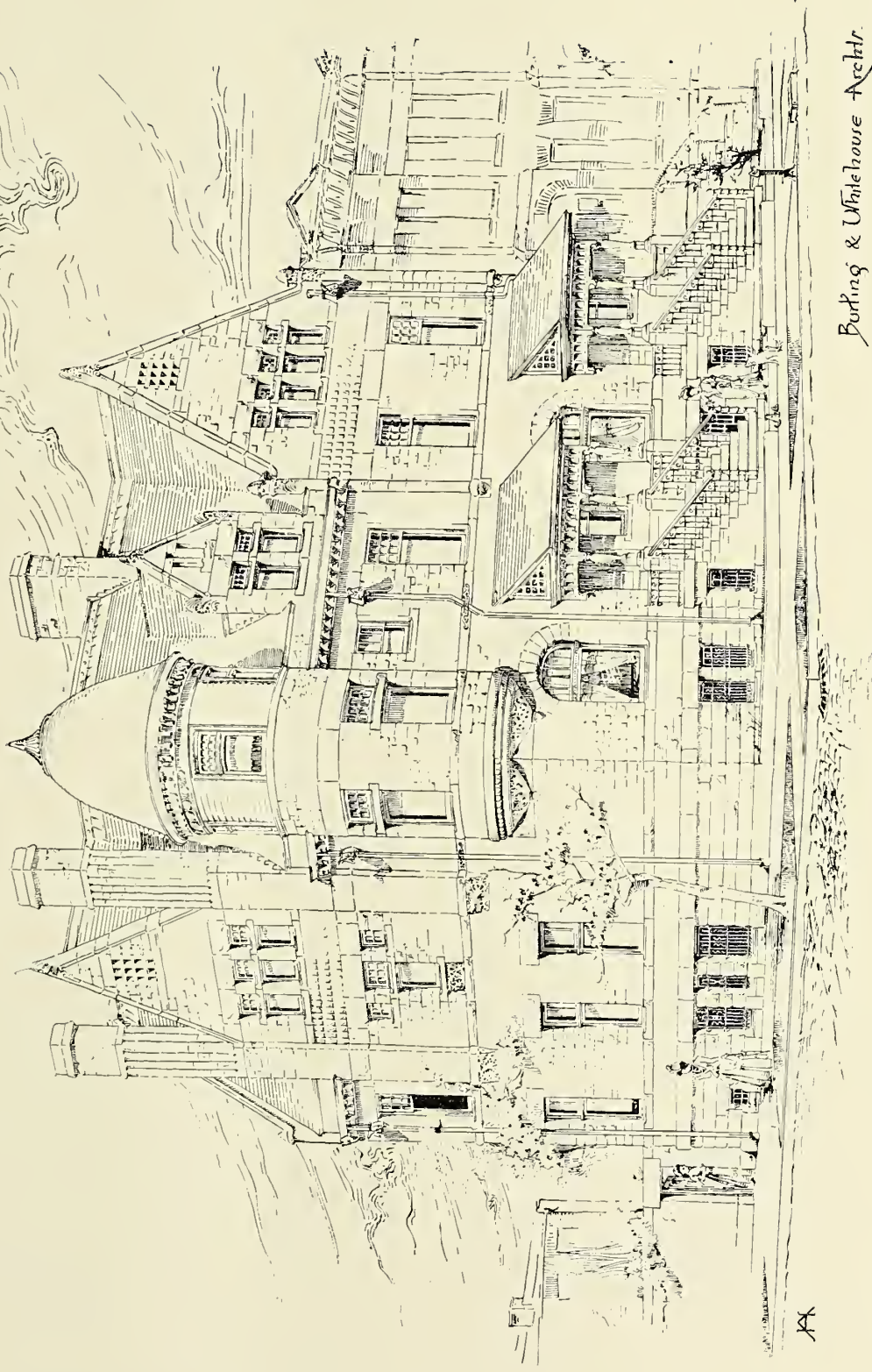
Morgan Park Library

Charles O Frost  
Architect.  
Chicago





Property of  
**D. E. P. Caldwell**  
ON WABASH AVE & 33<sup>RD</sup> ST.  
CHICAGO ILL.



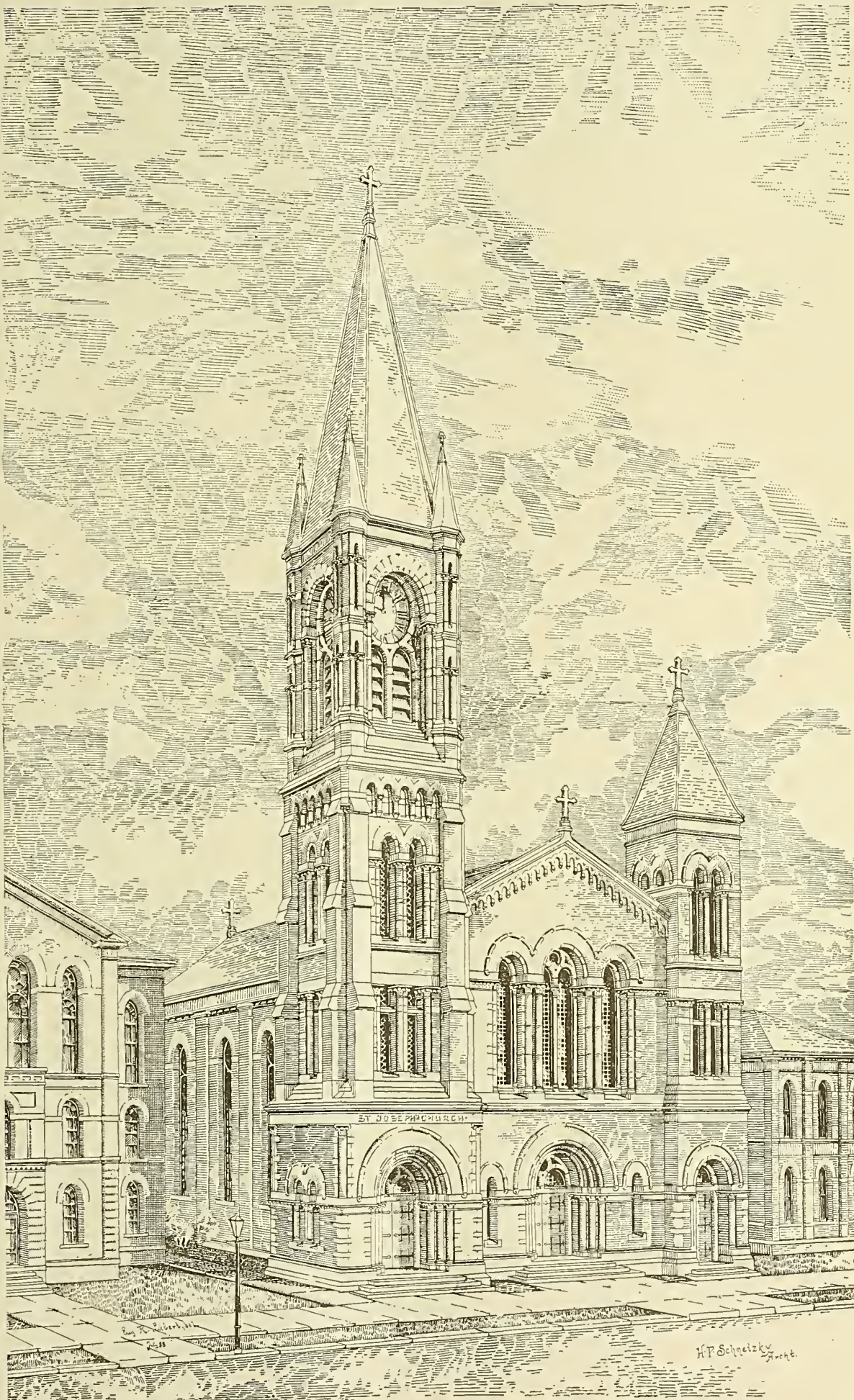
Burling & Whitehouse Archts.

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ST. JOSEPH'S CHURCH, MILWAUKEE, WISCONSIN.

H. P. SCHNETZKY, ARCHITECT.



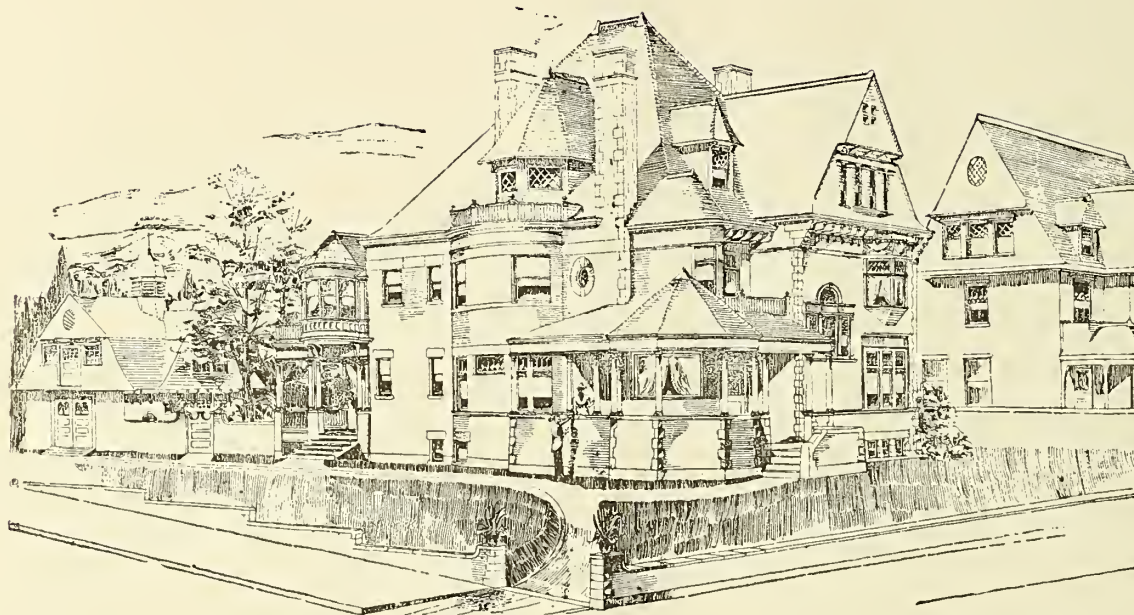








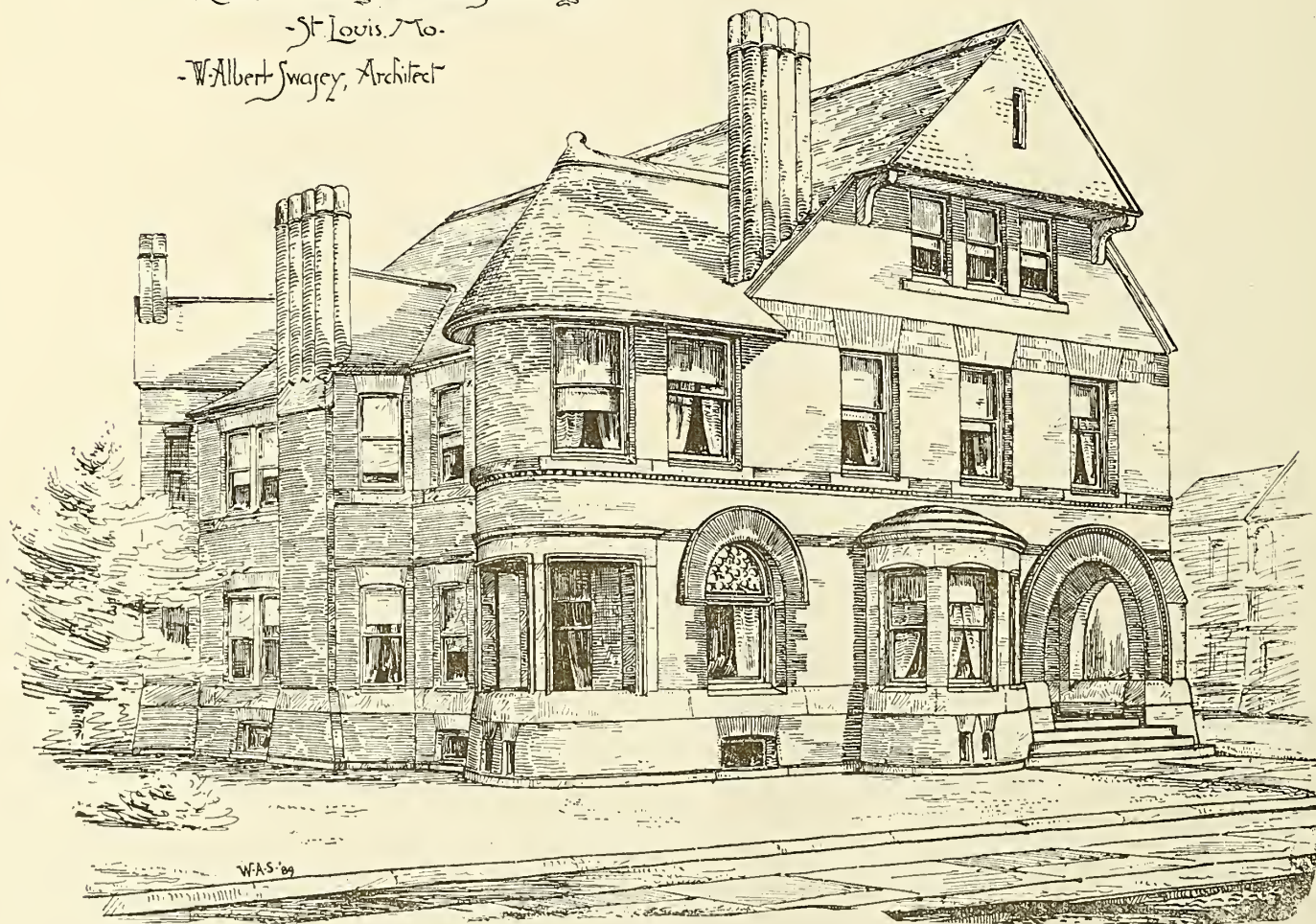
Residence for W. Chamberlin Esq.  
Denver Colo.  
Kidder & Humphreys Architects



RESIDENCE FOR A. W. CHAMBERLIN, DENVER, COLORADO.

KIDDER & HUMPHREYS, ARCHITECTS.

-Residence design for James Taussig Esq.-  
-St. Louis Mo.-  
-W. Albert Swasey, Architect



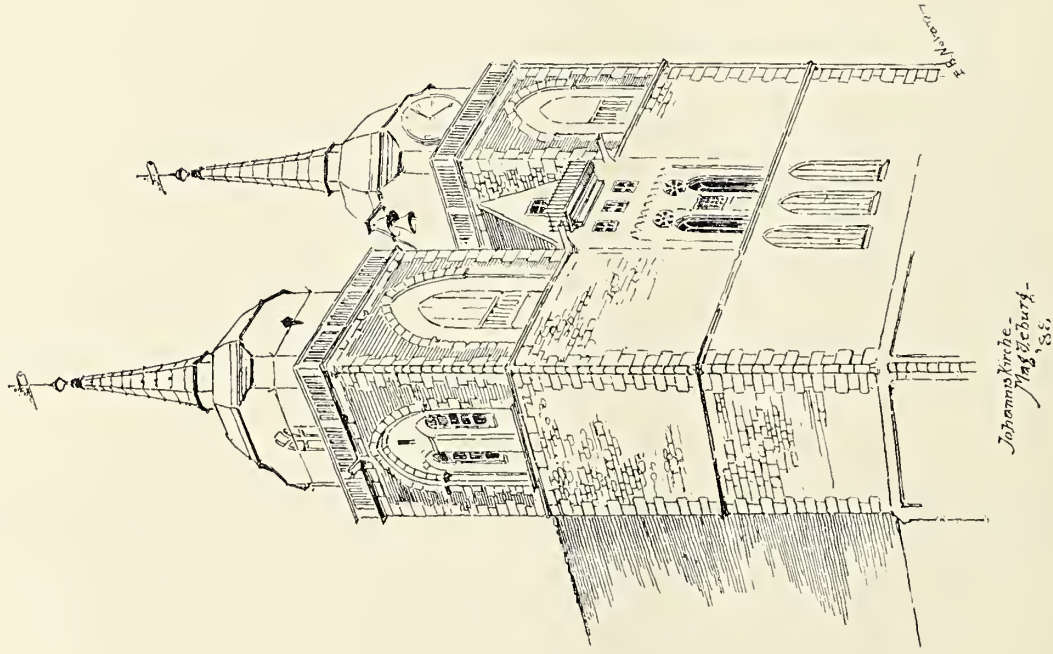
RESIDENCE DESIGN FOR JAMES TAUSSIG, ST. LOUIS, MISSOURI.

W. ALBERT SWASEY, ARCHITECT.

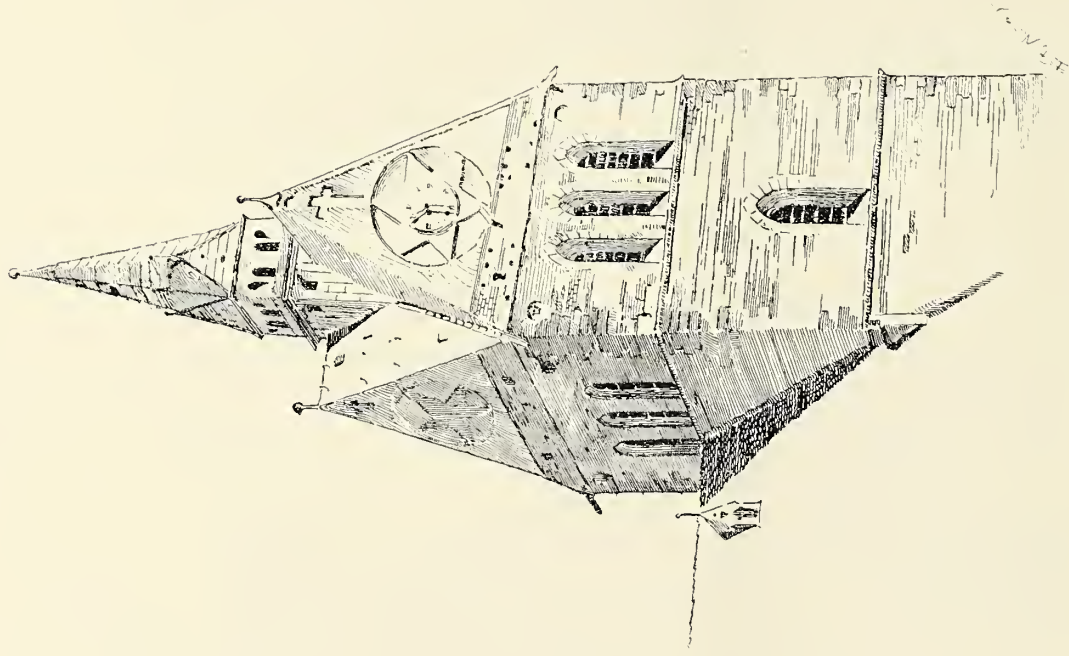




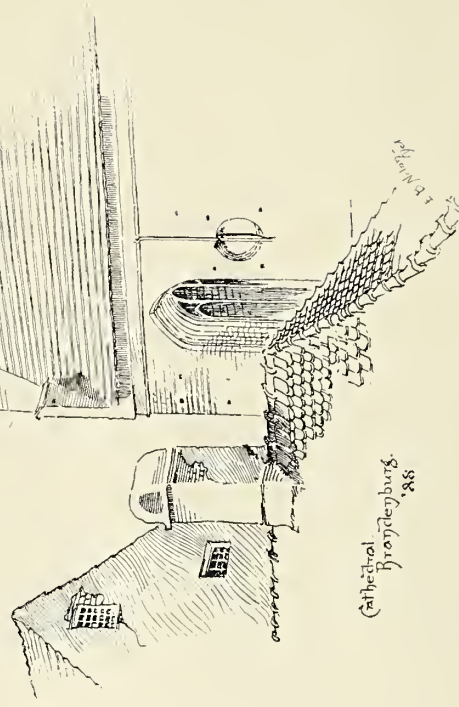




Johanniskirche.  
Magdeburg.  
'85.



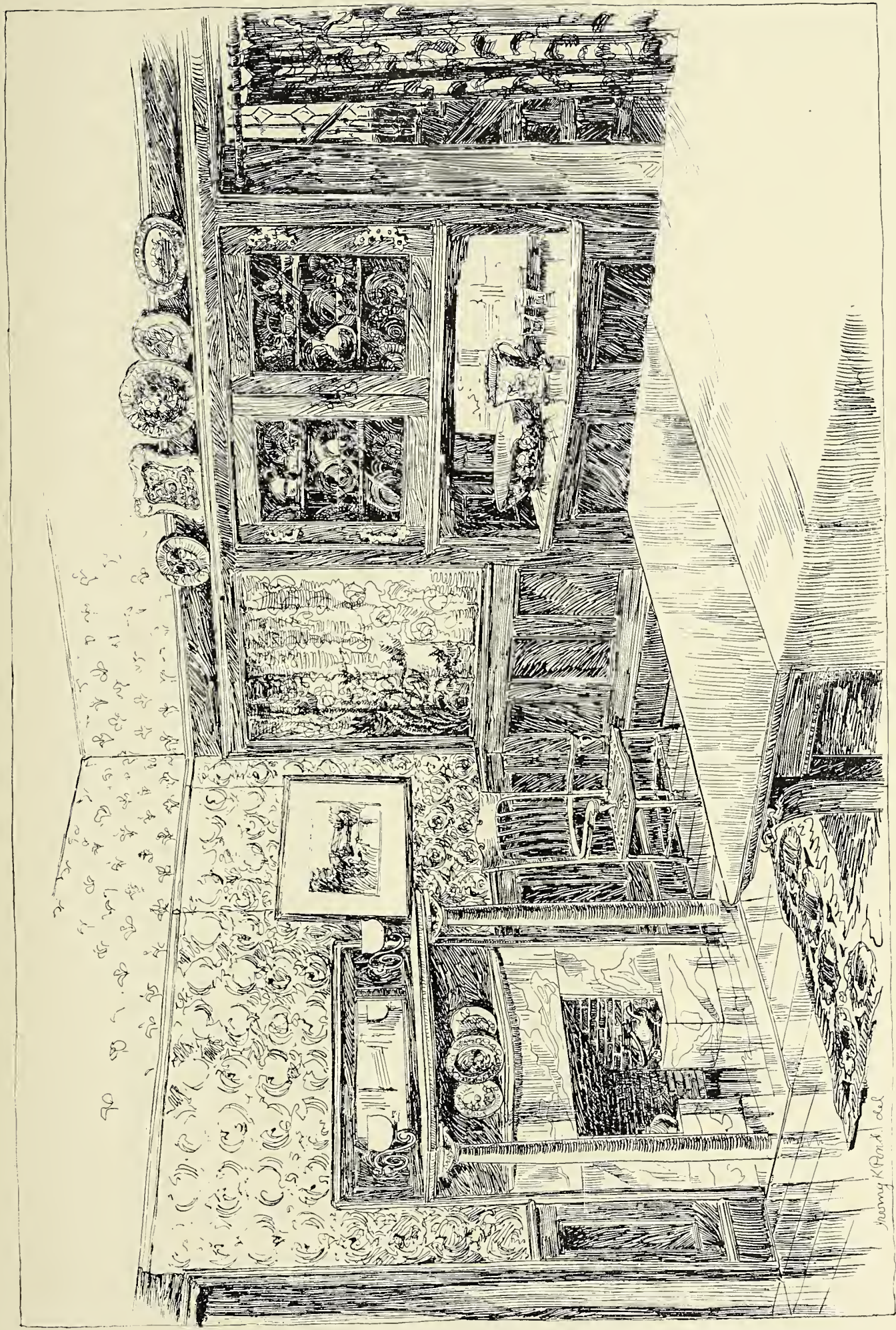
MarkKirche.  
Hanover.  
'88.



Cathedral  
Groydenburg.  
'88.

SOME FOREIGN TOWERS.





DINING-ROOM INTERIOR, RESIDENCE OF JAMES MULLEN, CHICAGO.

IRVING K. POND AND ALLEN B. POND, ARCHITECTS.









STUDY OF RESIDENCE FOR J. MORTON, CHICAGO.

FLANDERS & ZIMMERMAN, ARCHITECTS, CHICAGO.







THE INLAND ARCHITECT AND NEWS RECORD

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SEPTEMBER, 1889.

THE INLAND ARCHITECT AND NEWS RECORD.

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Location Selected for Joint Convention. Cincinnati has been agreed upon by the trustees of the American Institute and the board of directors of the Western Association of Architects for the place of meeting of the first convention of the consolidated societies. To make arrangements for the convention there will be a joint meeting of the trustees and directors in New York on September 19. From the first we have advocated Cincinnati as the place for the joint convention, because of its general availability, and we have no doubt the results will show the wisdom of its selection by the executive boards. There is sure to be a large attendance representing all sections, and the hospitality of the Cincinnati architects is well known.

The Architectural Course at the Art Institute. Elsewhere in our columns is outlined an architectural course which it is proposed to establish at the Art Institute, Chicago, in connection with the present courses in decoration and design. We have nothing but praise for this new venture and shall have more to say on the subject hereafter. It has long been a cause for regret that our draftsmen and students of architecture have had such poor facilities for anything like a suitable training; and we welcome this modest start with the expectation that it will in due time develop into a course where as thorough training may be had as is now given at Columbia or at the Boston Institute of Technology. We hope that Chicago architects will individually take the earliest opportunity to assure the managers of the Art Institute of their hearty appreciation of and coöperation with this timely step.

Art at the Exposition Building. The artist and general visitor at the Interstate Exposition in Chicago will be well repaid by a visit to the galleries. The room heretofore occupied by casts has been transformed into a picture gallery materially increasing the hanging space. Many prominent American and foreign names appear in the catalogue, and the walls hold much that is attractive in the way of genre pictures, landscape and portraits. Ambitious canvases are fewer in number than usual, so that there is a greater number of smaller works of high average quality. Among the water colors are several Whistlers. The architectural visitor will highly appreciate the few canvases which show subjects in which he is most deeply interested, but he will regret that the number is so limited. We have often wondered if the managers of the art department of the exposition could not contrive to bring together a collection of fine architectural drawings. Such a collection is an important feature of the French Salon and of the Royal Academy exhibits, and however meritorious may be the display at the exposition galleries, it will never be complete till such a feature is included. And, too, we regret the total absence of black and whites.

National Exhibition of Architectural Drawings. With commendable enterprise, and an appreciation of the interest and value of such an exhibit, the Cincinnati Architectural Club has undertaken an exhibition of architectural drawings and sketches. We publish in another column the circular of information issued by the club. The exhibition is to open in Pike's Opera House, Cincinnati, November 19, and continue one week. It is expected the exhibit will



include the work of all sketch clubs and prominent draftsmen of the United States and Canada. The Hinkle gold medal will be given for best exhibit of club work, the Anderson silver medal for best individual work of club members, and the Builders' Exchange medal for best water-color perspective. This is an unusual opportunity for architectural draftsmen to display their capabilities, and we earnestly hope that as individuals and as clubs they will heartily coöperate with their Cincinnati brethren to make the exhibition the largest and best display of architectural drawings ever made in America. Great additional interest would center in the exhibition if it and the joint convention of architects could be held at the same time. Might not this be accomplished?

Architects and their Relation to the Fair of 1892. It is a foregone conclusion that a world's fair is to be held in the United States in 1892, and it behooves the architects of the country to take all possible steps to insure the representation thereof of the very best work that American architects have done in recent years. This will be partially accomplished by the presence of a collection of pen and ink drawings, water-colors and photographs, together with such an exhibition of building material and inventions and appliances as shall give a full idea of the newer methods and recent achievements of the profession. To this end it may be desirable that the coming convention of the joint association should appoint a standing committee from among its most influential members whose duty it shall be to look after all architectural interests in connection with the fair. It may not be presumptuous for this committee to use all proper influence with the exhibition committee on buildings to the end that the architects of the buildings may be chosen from among the very best men in the profession, and the buildings shall speak for themselves as to the highest attainments of American architects, and not be, as heretofore in American exhibitions, merely ugly and unsightly weather screens for their contents.

Style of Buildings for the World's Fair. Since it is certain that a world's fair is to be held in the United States in the near future, it will not be out of place to set forth at this early day such general principles as should govern the erection of the buildings, whatever location may be chosen. It is probable that some few of the buildings will be permanent, and hence, in material and style of construction, should be in every way substantial, and all such permanent structures may be properly given an amount of elaboration in finish not otherwise necessary. Such dwellings as are to be merely temporary should not for this reason be sham or shoddy, but should rather receive an amount of study and care in the disposition of masses that shall render them not less artistic, even though less elaborate than structures intended to be permanent. And in general each building should have, so far as its uses permit, a real architectural value, being, as may be required by circumstances, characterized by straightforward simplicity or complex harmony, dignified or graceful, and always beautiful to the full extent allowed by its purpose, site and materials. The architecture of the buildings should be American in that the materials, so far as they have any distinctive and individual quality, should be American; and in that the planning and mode of construction should follow the best and most distinctively American model in so far as they are appropriate to the purpose. As

to the matter of style in architecture, no attempt is worth making to show to the world the typical American architectural style, inasmuch as no such style has yet been evolved. The question of what general historic style or styles may be employed fittingly, need not be discussed here. It would certainly be a gross mistake to allow a confused jumble of heterogeneous types in any closely compacted group; but where a sufficient space of open ground or park about any single building, or group of buildings, isolates it from other buildings or groups, it may well be that the style of the isolated building, or group, should be determined, when possible, by the uses which it is to serve, and that no special reference should be had to other remote buildings or groups. It is almost superfluous to say that each single building should be treated as a unit, and should form, not an ingenious compilation of unrelated features, but a harmonious whole, only so far modified as to bring it into harmony with buildings of similar design in the closely allied group of which it may form a part.

As to High Towers for the World's Fair. While on the subject of the architecture of the exposition, a word as to lofty towers may not be amiss. We have no need to demonstrate to the world that a tower fifteen hundred feet or two thousand feet in height can be raised. It is a much more difficult feat to span those distances horizontally than to reach them vertically, and the former we have done. In spanning these distances we have achieved the great aim of engineering—utility, but never yet have we touched the high end of architecture—beauty. In striving to reach these highly elevated planes we can achieve neither utility nor beauty, hence we ask, what is the desirability of structures of this sort? Certainly not for astronomers' purposes, the mountains afford a firmer base and far more lofty altitudes; nor for scientific research of any sort, our low, solidly built laboratories are better; nor for beauty, such flimsy structures can add nothing of grace or dignity to the landscape. For what, then, are they desirable? So that one may say "I have been up fifteen hundred feet?" Along comes a tourist from Switzerland and modestly exhibits a paper which indicates that he has breathed the air at an altitude of sixteen thousand feet. For what, then, are they desirable? Clearly to coin dollars for the builders. In fact, that sort of structure can only be considered a lightning rod to admit of discharge from our overcharged commercial spirits. We speak now and as we do on the subject of towers, knowing that it is being discussed in connection with the exposition of 1892, and we hope to aid in creating a sentiment which will induce capital to turn from these and kindred undertakings and interest itself in more beautiful and useful channels. It is not necessary to outdo Paris. She may have reason for her towers; we certainly have none; and, too, it may be well to remember that when we have outdone Paris the lowest mountain still overhangs us.

Selection of Architects for the World's Fair. As to the choice of architects for buildings for the world's fair, we take it that, inasmuch as the exhibition is to be a national affair, it should be representative of the nation's best in its architecture as in all else; and that to this end the best architects in the country should be summoned and to each should be given the designing of a particular building or group, subject to the general plan devised by the committee on arrangement of grounds and buildings.



While this would not debar the representatives of the architectural profession in the place where the fair is held from having their full share in the work, it would give to all visitors a far better idea of the real merits and resources of the architectural profession in the country at large. We are of the opinion that a competition for the selection of these architects would be quite superfluous. It should not be a matter of great difficulty to select a half dozen architects, more or less, who would be acknowledged by the profession as a whole to be either its best men or equal to any and fully representative of the best attainments of the profession. Certainly, each architect, however eager for a share in the work, will concede that this method is not only the simplest and most practicable method, but the one which, as committees go, will be the most likely to yield results creditable to the profession. The mere fact that it avoids the waste of energy and time inseparable from a competition on any large scale, should sufficiently commend the plan here proposed. If it be asked how the committee on buildings and grounds, whose members are like enough not to be particularly versed in architecture as an art, is to set to work to make such a selection, we should suggest that the committee request each member of the American Institute of Architects (or the joint association, by whatever name called) to make and send to it a list of the dozen American architects from among whom he thinks such a selection should be made, and that from the dozen having the highest number of votes the committee should make their selection, exercising within the limits thus set their discretion as to geographical distribution. A committee acting on the line thus indicated would be assured from the outset that a selection so made could not go wide of the mark, and must fairly represent the consensus of those who from training and experience are best fitted to express a judgment.

Probable  
Location  
of the  
World's Fair.

Whatever city shall be chosen as the location of the world's fair, all our cities will lay aside all rivalry and do all in their power to make the fair really representative of the whole country. While any one of several cities that could be named would serve the purpose well, it would be useless for us not to admit that we should like to see Chicago selected. There appear to be some reasons why, other things being equal, a city in the interior would be better than a seaboard city. We wish not merely to hold a successful world's fair, but to have visitors from the Old World see as much as possible of the character, perhaps better characters, and resources of the United States; and to this end it is desirable that all visitors should penetrate a considerable distance from the seaboard. As for the advantages offered by Chicago, we propose simply to call attention to certain of its conveniences and facilities, without making any comparison with other cities. In the first place, while Chicago is not a finished city, being still in a state of rapid transition and evolution, it is for this very reason a representative American city. It is, moreover, characterized to the fullest extent by that aggressive and untiring energy which has made the United States a wonder to the Old World. Its railway facilities are adequate to the demands of the occasion, and the waterway communication with the East is speedy. Owing to the influence of the great lakes the summer climate is noteworthy for its coolness. It has an abundant supply of pure, cool water, ample hotel accommodations, and ample ground for buildings, easily accessible from the center of the city.

Within its limits are carried on many varieties of the great industrial enterprises that have made America a factor in the daily life of Europe. By virtue of its location it offers an opportunity for a commanding display of the resources of the great Northwest in agriculture, fruits, stock, minerals and timber. And, finally, so far as the burden of the national enterprise must fall on the city where the fair is located, Chicago can be counted upon to do its full share and to conduct its part with its wonted push, precision and skill.

Death  
of Mr.  
Henry Shaw,  
of St. Louis.

The death on Sunday, August 25, of Mr. Henry Shaw, of St. Louis, will be learned with profound regret by a very wide circle of refined people at home and abroad. For many years, even before the war of secession, the fame of Shaw's Gardens in St. Louis had spread far and wide; they were among the first objects of inquiry by visiting strangers, and are prominently mentioned in books of western travel. A native of England, born in 1800, Mr. Shaw came to St. Louis in 1819, and rapidly acquired a competence in mercantile business. He withdrew from trade in early life and devoted himself to the creation of a private park and garden, to embrace every important species of vegetation, and to illustrate to Americans the possibilities of landscape architecture on a scale and with a perfection till then undreamed of on this continent. Once established these spacious and elegant grounds, with all their appointments, were opened to the enjoyment of the public without entrance fee or other charge whatever. Later Mr. Shaw increased his princely benefactions by the donation to the city of Tower Grove Park, an exquisite bit of landscape of several hundred acres, solely on condition that the city would maintain it in a manner commensurate with its beauty; and every year since then he has himself added new gifts to its adornments. Mr. Shaw was also a liberal patron of all the fine arts, and his acts of unostentatious private beneficence are too numerous to be mentioned or even to be ascertained. His wealth is estimated at \$2,500,000. The project of erecting a statue to him, which he repeatedly declined during his life, is now revived by the grateful citizens of St. Louis, and it may become the subject of an architectural competition.

Prospects of  
St. Louis  
City Hall  
Competition.

The prospects for a successful issue to the St. Louis city hall competition are very encouraging. The favorable terms offered to architects, and the high standing of the commission in charge of the competition, have elicited an unusual interest among the best men of the profession quite generally in the United States. It is almost certain that Professor Ware, of New York, will be the expert chosen to examine the plans and advise the committee. While one or two other eminent names have been considered, it is believed that Professor Ware, being most widely known among architects east and west, and having already acted in this capacity several times with entire satisfaction, would be the most acceptable to all parties interested. Some inquiries having been made as to the prospect that the building will be erected, Mr. Bell states officially that the city has now in hand \$200,000, which at the end of the year will be increased to \$600,000, and that \$400,000 a year will be added thereafter until the building is done and paid for. It is expected that its erection will occupy two or three years.



## Romanesque Architecture.\*

### CHAPTER XVII.

INFLUENCE OF BYZANTINE ART ON ARCHITECTURE IN THE EAST AND WEST — ARCHITECTURE FROM THE SEVENTH TO THE ELEVENTH CENTURY.

BYZANTINE art, which was so gloriously manifested by the superb works of Justinian, exercised from its very beginning a considerable influence, which extended later over the entire West, but which was general in the East, especially during the prosperity of the Greek Empire. That empire expired toward the seventh century, exhausted by its victories as well as by the attacks of the Persians.

One can easily trace the Byzantine traditions from the earliest times of the Arabian Empire. From the commencement of the Hegira in 622 to the time when they gave to their art its particular character, the Mussulmans, the most implacable enemies of the Christians and the Greek Empire, borrowed characteristics that are easily traced from the art of their enemies, or Byzantine art. When the Arabians extended by their conquests the Moorish dominions from Asia Minor to the Pyrenees, art with them only existed under the most rudimentary forms.

As the Christians established their first altars in the civil basilicas of Rome, so the Mussulmans preserved in the country they conquered the religious monuments. They modified them, then constructed new edifices, arranged according to their religious requirements, but this architecture preserved traits of its original character, from the influence of which they were not able to free themselves.

"In Syria the Arabians did not construct mosques. They took possession of the churches of Christ and dedicated them to Allah. Often, for several years, the two worshipers lived side by side in the same edifice." It was the same in Spain, and the historians of Arabian art distinguished in this country the first Byzantine period, which extends to the end of the tenth century. Between the caliphs of Cordova and the emperors of Constantinople connection was kept up; learned men and Greek artists hastened to Spain. Moreover the ancient edifices of Cordova show the mark of that influence so very evident in the celebrated mosque of Cordova built by Abderaman toward the end of the seventh century.

In the middle ages, under the kings of the first dynasty, and consequently much before Charlemagne and the pilgrimages in the year 1000, relations existed between the West and the East, while Byzantium exercised such powerful attractions that the princes of France, Germany and Italy sent ambassadors there continually.

A great number of pilgrims from all the western countries visited the Holy Land, and going or coming by way of Constantinople, they spread throughout Europe, by the recital of the splendors of the Byzantine civilization, and the description of its admirable monuments, an enthusiastic desire to equal the people of the East. Greek monks, who had established themselves in the South of Italy, Rome, France and Germany, contributed largely to the spread and development of these ideas.

In the Merovingian epoch, Syrian colonies existed in the center of France, and it is not to be doubted that they carried with them the monumental traditions of Central Syria, which developed so well, and can be so easily discerned in the ancient province of Aquitania.

Byzantine influence was certainly felt in Italy; it was felt less to the north of this country, because of the division into a great number of states and towns, as different from each other in a political as in an artistic point of view.

In the South of Italy, the rule of Byzantium is evident. For several centuries an entire part of this country was attached by religion, administration and language, to the empire of Constantinople. The ancient Magna Grecia always merited that name. Even the quarrel of the Iconoclasts, that separated the East from the rest of Italy, strengthened Hellenism in the south; the partisans of images took refuge in great numbers in the south, and the Greek emperors did not disturb them.

Venice, at the other extremity of Italy, is a Greek city. Its prosperity increased in proportion as that of Ravenna declined. "Venice maintained her independence between the Lombards and the Franks, and the nominal suzerainty of the Greek emperors that she affected to recognize, was really the means of her fortune. The Venetian monuments, among others Santa Fosca at Torcello, and St. Mark's, at Venice, recall those of Constantinople.

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

The churches built in Greece from the ninth to the tenth century, in their general arrangement, as well as in the details of their construction, bear traces of Byzantine architects.

The church of St. Nicodemus, and that of the monastery of Delphi, built at Athens or near that city in the tenth century, resemble in plan and style of architecture, the church of the Mother of God Agia Theotocos built about the ninth century in Constantinople, and that of Sts. Sergius and Bacchus, erected in the sixth century.

In Russia the Byzantine art movement commences with Greek Christianity. Until the tenth century the Russians knew only of wooden constructions. It was the Byzantine architects who built the first stone churches, and Byzantine painters who decorated them. But Russian art rapidly assumed peculiar characteristics, and the Greek element mingled with others of eastern, western and Asiatic origin. The cupola no longer reposed on spherical pendentives, but on a series of arches or superimposed corbels, passing from the square form to the circular. Its exterior form assumed a bulbous shape, and the architecture, while still showing traces of Persia and India, soon assumed an original character that it has happily preserved.

The Byzantine influence is manifest in Germany from the eighth century, and it seems probable that Charlemagne contributed largely to it. "The Carolingians had continual relations with the emperors of Constantinople." We know that objects of art came from Constantinople to the West. A bishop of Cambrai, Halitcharius, sent as ambassador to Constantinople, brought back from there carved ivories. Oriental stuffs were in great demand and from fragments found in the tombs and shrines of the times, laic and clerics must have loved to wear them.

It is also known that the Palatine chapel of Charlemagne at Aix-la-Chapelle, commenced at the end of the eighth century and finished in the early part of the ninth, was inspired by the church of St. Vitale at Ravenna, built at the commencement of the seventh century in imitation of the Temple of Gold, erected at Antioch by Constantine and which is acknowledged to be the most perfect example of Byzantine art.

A great number of churches were built in the valley of the Rhine. The Byzantine traditions of the architecture of Aix-la-Chapelle can be easily traced, more by the exact reproduction of plans and forms than by the mode of construction.

In France Byzantine art preserved for a less time than in Italy its original characteristics; but its influence is visible in both countries and the grand churches of Venice and Périgueux, nearly contemporary, both show their oriental affiliation. The same idea is only interpreted differently in the two countries. In Italy St. Mark's is a copy of Byzantine work, constructed according to Roman methods. It has remained an alien, a unique work, though it has had very little influence on all around it.

While in France St. Front was a reproduction in its arrangement of its oriental model, its construction is very different and manifests much greater skill in the art of building.

The architects of Aquitania, familiar with the traditions of antique Rome, had been acquainted for a long time with Syrian traditions, and assimilated the process with Byzantine art. These different elements perfected by them and appropriated according to their mode of construction, in which the stone was shown in the simple beauty of its combination, appropriately cut, soon formed a style of building new in Europe after the year 1000.

This new style, having an original individual character, exercised in its turn a considerable influence on Romanesque architecture, and was certainly one of the principal causes of the extraordinary development that took place in the first half of the eleventh century.

### PART II.

HISTORY AND CHARACTER OF ROMANESQUE ARCHITECTURE — BAPTISTERIES — RURAL OR MORTUARY CHAPELS — CHURCHES HAVING

THE FORMS OF BASILICAS — ROUND OR POLYGONAL CHURCHES — VAULTED CHURCHES.

### CHAPTER I.

DEFINITION AND CHARACTER OF ROMANESQUE ARCHITECTURE.

Romanesque architecture proceeded directly and surely from Roman and Byzantine art. According to Quicherat, "Romanesque architecture is that which has ceased to be Roman, although it contains much that is Roman, and though not yet Gothic, contains much that is Gothic." According to Viollet-Leduc, "In Occidental Romanesque architecture, by the side of the persistent Latin traditions, there is to be found everywhere a Byzantine influence shown by the introduction of the cupola"; and in another place he says again: "Up to the eleventh century the religious establishments — great centers of



art—did nothing but follow the Roman traditions." Therefore it was necessary to first know Roman art, or at least the epoch which might be called the time of its point of departure. After this it was necessary to study Byzantine art, when took place such a brilliant transformation. In short, to define Romanesque architecture, it was indispensable to study Roman and Byzantine art, which gave birth to it. We can then follow its affiliations, which themselves establish the proof. It was necessary to show this, and it was for this reason that the first part of this work is so important.

The Romanesque builders imitated the Roman and Byzantine, as these followed more or less faithfully the monumental traditions that their predecessors had transmitted to them.

There is no demarkation as clearly cut, within a classification as radically narrow, as that which has been invented by certain archaeologists trying to prove that the character of Romanesque architecture is definitely determined by the character of the stonework and ornamentation. They measure the monuments minutely, stopping especially over the details from whence they draw erroneous conclusions, describe the cutting of the stones, or analyze the mortars which cement them. They dissect, so to speak, the moldings of the cornices and corbels, the carving of the string courses, of the friezes and capitals; but all these features so painfully studied and so laboriously combined do not give the exact physiognomy of the whole.

Indeed, Romanesque buildings, whether they were made with the greatest possible perfection or executed in the rudest manner, always bear the visible marks of the Roman manner of treating the stone, a certain proof of the power of traditions so strong that they induced the Romanesque architects to imitate the Roman practices, even in those things which they did with the most picturesque naïveté, for in the eleventh century they still made wall facings in the Roman manner in ornamental patterns called herring-bone and beads. Romanesque ornamentation is equally an imitation of the antique; the moldings and carvings accentuate or decorate the architectural members at the same points where the Romans were accustomed to apply these ornaments. The difference often only existed in the execution of the work, rudely and unskillfully imitated in the countries of the North, or in the South executed so perfectly that they at last succeeded in perfectly imitating the buildings erected by the Romans.

"All this does not constitute Romanesque architecture, which is only a particular method of construction, the character of which could only come from the fundamental arrangement of the edifice, and from laws, following which the solid parts and spaces are combined."

The principal characteristic of Romanesque architecture is the vault.

The Romans knew of the vault, and three of the forms which they used were applied by the Romanesque architects, the barreled vault, the ribbed vault and the cupola.

The Roman basilicas were covered by an open timber roof, forming at the same time the ceiling and the outer covering. The first Christian basilicas, built in the Roman style, were an imitation of this arrangement, but the contrast between the two styles of architecture and the point of departure, in all the differences that separate them, is manifest in the application of the vault.

"The Romanesque churches are vaulted, covered beneath the roof by constructions of different forms, where the stones are held fixed in space."

The vault exerting a strong continued thrust on the side walls or piers, which it tended to overthrow, rendered it necessary to build the wall thick enough to neutralize the weight, diminishing the size and height to resist the thrust of the forces. It consequently made the architecture more heavy, admitting less light and making the central nave more obscure. On the contrary, the Roman basilica, with its timber roof covering the central nave and side aisles did not have any tendency to throw out the piers and was generously open and lighted. Lateral walls, formed of colonnades and arcades, only having to support vertically the upper part, where were many windows, could be constructed with more lightness and elegance.

It was necessary to choose between two alternatives, either to keep the complete basilica form, or to modify it as to the plan or at least the details of its construction, by the adoption of the systematic vaulting of the edifice.

If the Romans had recoiled before such a radical solution, the Romanesque architects had less scruples, because of the need there was for them to preserve the Christian altars and holy relics from those oft-recurring disasters occasioned by the burning of the roofs.

"They sacrificed all the classic proportions of the vault, making the walls thicker, grouping the piers more, reducing the bays; in a word, in every way lessening the openings and increasing the walls."

But in these experiments, where lack of taste was not able to place limitations on the Romanesque architects, a time came when common sense warned them to stop. This happened when the encroachments by the walls on the spaces became such that the acoustic properties of the edifice were destroyed, when light no longer penetrated into it, and circulation was nearly impossible. They remedied these inconveniences by new arrangements, applying themselves to the construction of vaults, and to making openings in the walls and piers.

Byzantine art had an equally strong influence, which was felt nearly all over Europe, on the construction of religious edifices. In the time of Charlemagne, the Palatine chapel at Aix in Germany, and Germiny-des-Pres in France, are certain proofs of this; but in the eleventh century its effects are not generally manifest in the vaulting of the churches, except in St. Front at Périgueux and St. Mark's at Venice.

Up to this epoch, even during the brilliant period of the Carlovingians, nearly all the churches (with the exception of some chapels and vaulted baptisteries, or some churches which we shall mention), on the borders of the Rhine, in Aquitania, in Burgundy and in France, were built of stone and covered with wooden roofs.

History furnishes us proof of it. "The Normans always made their bonfires in the temples built at great expense by the Frank emperors, and the result of these fires was the total ruin of the edifices. If the Normans had had to do with vaulted edifices, they could have even placed their fires inside and out, and the edifice would have experienced only partial and not total destruction. They could scarcely have made the walls fall; but, on the contrary, applying themselves to the ceiled building, it was sufficient to set fire to the woodwork of the interior, so that the flames could gain the roof. This giving way, the columns were not long in breaking into fragments, and in their ruin, dragging down the walls."

The lesson given by the Normans did not bear immediate fruit, and we see many churches rebuilt on the basilica plan after the Norman invasion. Chronicles of the time filled with recitals relative to fire caused by lightning, with the destruction of churches as their result, prove that these edifices were yet covered with wood.

The vaulting of the churches and its system was adopted about the year 1000, with enthusiasm by a people in love with everything novel, and who saw in it a picture of durability fitting the new birth of the world.

The advent of Romanesque architecture is thus established at the commencement of the eleventh century.

However, the new system of construction was not applied everywhere from the year 1000, for in 1008, according to the account of Raoul Glaber, a legate was sent from Rome to dedicate the church of Beaulieu, near Loches, which had just been built, through the liberality of Foulque Nerra, count of Anjou. The very day of the ceremony a hurricane swept over the church, tore off the paneling of the roof, which, with the entire covering, was thrown onto the ground over and beyond the western gable. This proves quite well that the church of Beaulieu was covered with wood, after the manner of the ancient basilicas.

In other places the new system was not applied immediately to its full extent. Its execution commenced by timid attempts that we can recognize in different countries, notably in Brittany and Normandy in the edifices built in the first part of the eleventh century. The extremely rich church of Jumieges, which was commenced in 1040 and whose ruins are one of the wonders of Normandy, never had in its Romanesque parts anything but a wooden ceiling over its grand nave.

It is necessary to take the climate into account. At the same time that in the northern countries they were only making timid essays in the new system, in the southern countries they were more advanced, and already completely covered their edifices with vaults. There was built in Périgueux, in the first part of the eleventh century, a vast church of five cupolas, built in imitation of the Holy Apostles at Constantinople. It is a complete example of an admirable style in which Byzantine and Syrian influences were united—a union which was life-giving, and whose influence was so fruitfully manifest through the following centuries.

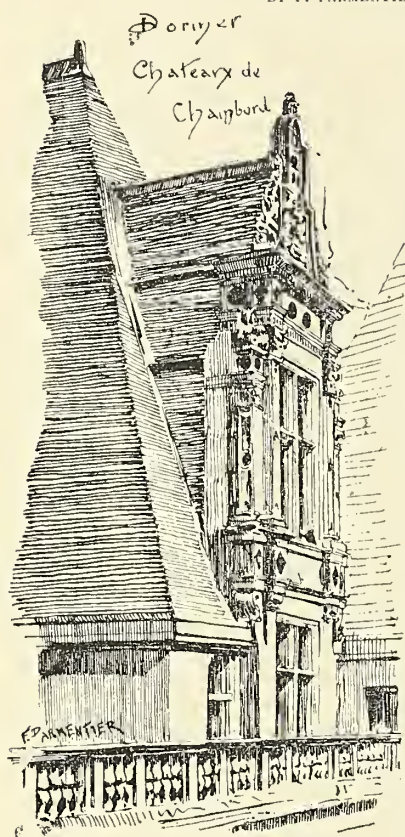
To facilitate the study of Romanesque architecture, it may be useful to establish the following order in the buildings mentioned: Baptisteries, or rural or mortuary chapels; churches of the basilica form; round or polygonal churches; and vaulted churches. In these we shall dwell only on the grand divisions and on the principal architectural characteristics.

(To be continued.)



## Style of Francis I.\*

BY F. PARMENTIER.



THE reign of Francis I and the splendid epoch of the Renaissance are inseparable in the minds of artists, as well as in the researches of the historian. The art of painting has more than once reproduced the noble spectacle of the King of France holding the dying hands of Leonardo da Vinci, and Pope Leo X closing the eyes of Raphael in that solemn chamber, where people, pontiff and cardinals pressed themselves around the great artist. There existed indeed at that time an enthusiasm hard to describe, an inclination toward the arts that no historical work could mention.

In speaking of the revival of arts, it is not my intention to go into the details of a history, but to confine myself to architecture only, with perhaps a few accessory remarks about her sister arts.

Before speaking of the style of architecture prevalent during the reign of Francis I, let us glance back to the period called the Middle Ages, and to the events that led to our style. By the Middle Ages,

we understand that period beginning with the downfall of the Roman Empire, and ending with the discovery of America.

We cannot fail to notice the religious ardor which manifested itself after the year 1,000. Roman basilicas were transformed into Christian churches. There was indeed a peculiar spirit which reigned during the Middle Ages and governed the minds of the people all over Central and Western Europe. Every one knows of the feudal laws which prevailed in the then civilized European countries—the arts and sciences being entirely influenced by the spirit of the age, as I should call it. The architecture of the Middle Ages was, in the early part, the Byzantine and the Romanesque, the latter developing into pointed or so-called Gothic architecture, which reached its most refined development in France.

Glancing over Europe, when the period called the Middle Ages is about to vanish, we will have to notice the following situation: The importance of Italy, Venice, Florence, Milan, Genoa and Naples—republics and powerful commercial centers. We will also see the importance of the German Empire, of England and of Spain; all this about the period between the years 1450 and 1510. Gunpowder had been invented, also the art of printing, and the great Italian diplomat, Machiavelli, was creating considerable excitement. Such was the general outlook in Europe about the time the Renaissance made its appearance.

In speaking of the Renaissance, we mean a general revival of all the arts of ancient Greece and Rome, and to Francis I we owe the first impulse of that revival in France; therefore, in speaking of that epoch, I would here and there say a few words about the monarch himself.

In the chateau of Cognac, in Angoumois, was born Francis I, September 12, 1494; he was then Count of Angouleme, and his childhood was passed in the chateau of Amboise. He was educated in all the arts of chivalry which were prevalent in feudal times, and he was made to read those beautiful romances, characteristic of the times—the literature of the Middle Ages. The young count grew up with an intrepid, strong character. His tutor, Artus de Gouffier Boissy, a savant in all things and a good talker, was greatly responsible for the taste that Francis afterwards developed for sciences and arts.

If the spirit of the Middle Ages still lived in its chivalrous customs or in the habits of castle life, it was evident though that society underwent a transformation. Such changes do not come all at once, they prepare themselves far back; and the childhood of Francis I was entirely influenced by these motives. At the age of eighteen, at that time Duke of Valois, he was married to Claude, the deformed daughter of his uncle, Louis XII, which alliance made him an heir to the crown of France.

Eventually, after the death of Louis XII, Francis I ascended the throne of France, on January 1, 1515, barely twenty years of age. His first campaign with Italy took place shortly after his ascension to the throne, when he appointed his mother, Louise of Savoie, regent. It is to this rapid transit to Italy, to this lightning conquest (too well known by all those familiar with the history of France) that we associate the epoch called the Revival of the Arts.

Let us now look back to Italy, at a time before this campaign took place, in order to gain a better comprehension of the situation. The

Renaissance in Italy was but an imitation of the antique; the progress of science against the legends of medieval Europe. The unanimous judgment of all men of intelligence places into the hands of Dante, Petrarch and Boccaccio the palm of literature of the Middle Ages. Compare this literature with the paintings of that epoch. Every nation has its characteristics, and certainly the nations of the Middle Ages rivaled themselves in this production. The Renaissance created for national literature the same evil that the romances of Cervantes did for the customs of chivalry; the same, we must say, for architecture.

What characterizes the Renaissance, is precisely the almost total neutralization of this national type. One forgets instinct, the creations of the people, and that, for the plastic imitations of the ancients. The fall of the Greek or Byzantine Empire was a yet recent event, and that nation, like other degenerated races, swarmed with orators, scientists and philosophers; these last named now come to seek refuge in Rome, in Venice, in Florence and wherever else they could find a place to gain their livelihood. They taught Greek and the antique arts; they pretended to teach the Hellenic arts as they were practiced in Greece before that country fell under the Roman sword. It is to these men that is probably due that fiery passion for all that was antique and which revolutionized the public spirit of that period. Greek architecture (or at least what was then understood as such), literature, laws, etc., were now predominating the public mind. The century, full of modesty, produced nothing of itself. One imitates and explains, and one stands amazed by the magnificence of the ancient world. The new generation is afraid to go into originality for fear of showing its inferiority. Archæology makes its appearance now in the shape of a science.

The magnificence of Francis I, this chivalrous spirit who always went to seek the beautiful and the grand, was now after the Italian campaign thoroughly saturated with this enthusiasm for the Renaissance. He very soon scattered gold right and left to induce the best artists of Italy to come with him to France and introduce the revival of arts in his country.

At the return from this campaign, the first steps taken by Francis I were to remodel the system of all the schools and colleges. Aside from the then renowned University of Paris, the king also established the College of France. The origin of degrees is also ascribed to that epoch. The studies of Greek, Latin, Hebrew, philosophy, law and medicine reached now their highest development. France, indeed, was also to see its last days of medieval life. Society was no more what it was in feudal times. Instead of only the nobility and the peasantry, there had now developed a new individual; this individual was the burgher or citizen. To the feudal laws had succeeded the Roman laws, and this new individual was to be the adequate representative of the period. It was he that furnished the scholars and scientists; the nobility furnished the knights and men of the sword; while the yeomanry tilled the soil and also furnished the material for the infantry of the army. Finances were also controlled by the burgher or citizen, because the nobles were, as a rule, at that time squanderers, and knew not the value of money.

The Renaissance was now making rapid strides in France; all the fine arts underwent a complete transformation; but, as it is my intention to deal only with architecture, I will say but little of the remaining arts and sciences. The artists that Francis I had brought with him from Italy were now commissioned to remodel the principal chateaux that had been the property of the past sovereigns of France. Such was the state of affairs in France at the time usually called the First Period of the reign of Francis I, and which ends with the defeat of Francis at the battle of Pavia, which was the last battle of a long war between Francis I, Italy, Henry VIII and Charles V, which latter three were allied against France. This was about the year 1525.

Everyone knows of the long imprisonment the king suffered in Madrid, Spain, from which he was released by Charles V on condition of a very one-sided and unfair treaty. In the year 1526 the king is again in France, and here begins the so-called Second Period of the reign of Francis I, which is really the most important for us to consider.

The state of affairs in general was very near the same as it was during the first period, but the king, advancing now toward old age, did not care so much for war as he did during the early part of his reign; while, on the other hand, his love for arts and sciences had been greatly enhanced. Aside from having been in Italy, he had now been in Spain, and had while there been deeply impressed with some of the existing buildings and monuments. He had come back to France with a new spirit and enthusiasm for the arts in general, and especially so for architecture.

A good deal of the work now being done in France was by native French artists. Although Francis was greatly impressed by the magnificent monuments he had seen in Italy, yet they were not his ideal. He had his own ideas about the beautiful, which he imparted to all the artists that worked under his auspices.

Let us now glance over some of the work that was accomplished during that reign, and which resulted in what we call today in architecture, "The Style of Francis I." As a monument of sculpture the tomb of Louis XII and Anne of Brittany, at St. Dennis, is, perhaps, the most noteworthy—a classical portico, surmounted by a large stone, on top of which lie the two statues, that of Louis and Anne. On every side of the monument are grouped admirable figures borrowed from the celebrated "School of Athens," by Raphael; heads of philosophers and apostles that seem to meditate about the vanity of human thoughts. This monument is the work of Jehan Juste. It is remarkable to see the degree of perfection the study of anatomy is brought to in this work.

Perhaps the best works in painting of that period were the following subjects, made at the Salle du Vatican, by Raphael, under the

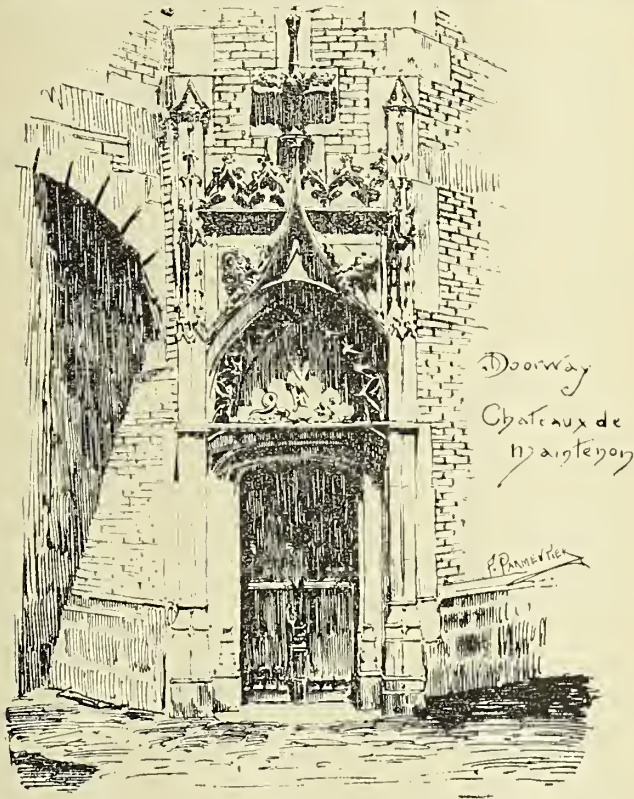
\* Paper read before the Chicago Architectural Sketch Club, August 12, 1889.



auspices of Francis I: "Della Segnatura," "Parnassus" and "Jurisprudence" and "The School of Athens" above mentioned, and, to complete all, the best of his "Holy Families." Francis was indeed the mighty hand that realized the thoughts of his epoch. He kept from the Middle Ages nothing but the adventurous impulse of chivalry.

In the early part of his reign I have said that Francis brought over with him artists from Italy to remodel the chateaux he was then inhabiting, but now there were quite a number of French artists at work upon these buildings, for the king believed in uniting the grandeur of the antique art with the national spirit in France, and thereby create a style of architecture different from what he had already seen in Italy. But this work did not confine itself to the chateaux alone. The Tuilleries and the Louvre were both remodeled to suit the tastes of the king. Among the chateaux occupied by the sovereigns of France, Pierrefond, Maintenon, Montigny, Amboise and Meillant remained examples of medieval architecture of France. Probably on account of their beautiful proportions and their fine Gothic details, Francis did not deem it necessary to alter them. The chateau of Blois sustained some extensive alterations in its interior, but the exterior still remains as a beautiful example of the best of French Gothic architecture, with exception of the interior court and the celebrated grand staircase, which latter are entirely of the Italian school. This chateau has recently been restored by M. Felix Duban.

The chateaux that underwent a complete change were Fontainebleau, Chambord, St. Germain en Laye, Viller Cotterets, Chenonceaux, Azay le Rideau and a few smaller ones. The reason these chateaux underwent a complete change will be explained by the following statement: The castle architecture of the Middle Ages in general, and especially these last named, consisted in heavy walls



with battlements, a good many elevated towers with narrow loopholes for defensive purposes; large doorways with pointed arches, and supplied with a drawbridge thrown over a ditch. Such buildings were more adapted for warfare than for habitations of pleasure and distraction, and were especially illfitted to the gay court life of Francis I. Therefore such buildings would not do, so he soon brought into their place the Italian construction and especially the Florentine and Milanese. Large square pavilions, long galleries, supplied with statues thrown into niches after the antique manner, were now predominant features with those remodeled buildings; everything up to the terraces and fountains seemed designed from the same model.

The chateau of Fontainebleau was already being worked upon during the early reign of Francis I. Situated in a most romantic locality, among large prehistoric rocks, Francis undertook to make it a spot of enchantment. Large water-basins were executed, around which wound themselves sandy paths, laid out after the style of Florence and Milan, and yet in such a way so as not to lose that wild romantic effect which pleased the king so much. The buildings composing this chateau are patterned after the Florentine and Roman school. Speaking of Fontainebleau, there is another structure which deserves mention. Situated about two leagues from Fontainebleau, at the little town of Moret, was built the House of the Cooper which, perhaps, is better known by the name of the house of Francis I, of which some time ago the *American Architect* published a photogravure. As forests abounded on all sides, Francis I had an idea of establishing there a rendezvous place for hunting, a pastime of which he was very fond, and he therefore caused to be erected the edifice I speak of. This house, by the way, has quite a little history. In 1826, it was sold by the government to a lover of the arts—I do not recollect his

name—who caused it to be transferred stone by stone to Paris, where, in the Champs Elysees, it was rebuilt, uninjured, with its own debris. The sculpture on it is attributed to Jean Goujon; the date, 1828, carved in the frieze, refers to the installation of the rebuilt structure. This house is a very elegant example of the style of Francis I.

Chambord is a confusion of buildings. Large towers predominate; imposing chimneys and elaborate dormers are some of the principal features. It is a mixture of the feudal and Florentine construction. Chenonceaux is Chambord over again, a little smaller. Statuary everywhere, the carving and sculpture conforming to the art of the Middle Ages.

To give any further description of the various buildings and monuments would only be tiresome to my hearers; I will therefore briefly review the style. It is evident that the architecture that was being developed now in France was in many respects superior to the Italian Renaissance, but more so in details than in general proportions; perhaps the high roofs traditional of the Gothic period were in a great measure responsible for what superiority it had in proportions. These facts are plausible when one considers the relative causes. The revival of classic architecture in Italy first manifested itself in the early part of the fifteenth century, through an architect named Phillippo Brunellen; and was afterward developed by such men as Bramante, Palladio, Michael Angelo, Vignola, Raphael and others. Now these artists instead of studying the remains of Greek architecture were more or less guided by the teaching of a Latin architect, Vitruvius. Vitruvius himself, instead of having carefully studied remaining examples of Greek architecture, took up the examples of the then existing Roman monuments, of which many missed the first principles set forth by the Greeks, and classified them into four orders, which he called Greek architecture, and to which orders he applied the most absurd rules of proportions, pretending them to be the secret of Greek art.

To these four orders Vignola added a fifth, which was an alleged mixture of the Ionic and Corinthian orders of Vitruvius. This fifth order was called the Composite, and was subjected to new rules of proportion, to distinguish it thoroughly from the others.

Such was and still is the so-called Italian school of architecture. It is evident that several of the above named artists were highly qualified by nature as architects, and therefore produced some remarkable works, even though their talents were more or less impeded by the education they received. As only the best works of the Italian school served as models for the introduction of the revival in France, the new style was evidently to be superior to the old one. French artists very soon promoted the style by refining the details and by combining some of the forms of the Renaissance with their own medieval forms.

The result was that they developed a style of architecture eminent in principle, elegance and refinement. The early French Renaissance was indeed well begun, but how soon it was to fall to such coarse and vulgar styles as those of Louis XIII and XIV, to be once more brought to a higher standard, with new theories and new principles, under the first empire. As I have said before, the style of Francis I, being the first manifestation of the Classic revival in France, was, nevertheless, like the medieval styles, the representative style of an epoch, harmonizing with all the customs and modes of living associated with those times. Can we say the same of European architecture of today? It is unnecessary for me to point out the evils of modern architecture, as the subject has already been discussed and demonstrated by many of our nineteenth-century architects. The great question lies before us: What shall be done, what more can we do than to study the works of our predecessors, try and follow their footsteps, using forms of design that they have used, and that have become perfect through the persistent labor and combined efforts of nations and generations? But, in reviewing this question, do we find that we are pursuing the proper methods? I will not attempt to answer this, but leave it to your own solution. However, I will take the liberty to outline a few facts.

For the past few years there has been considerable enthusiasm in the United States to develop a national style of architecture, and such a style that would entirely correspond with our customs and modes of living. To do this we are compelled to carefully study the architecture of the past in order to gain knowledge and train ourselves to appreciate true art.

Whether we should pick out any particular existing style as a model to guide ourselves by is a rather difficult question to answer. Nevertheless we all know that the architectural monuments and buildings executed by the Greeks at the time their arts were flourishing were of an order superior to anything that was done before or since. We know more today about Greek architecture than did the artists of the period of Francis I. Had they been guided by better sources than the books of Vitruvius, who knows what the result would have been?

To copy the forms of Greek architecture bodily, and apply them without reason to our buildings, should be considered out of the question. It is the underlying principles that we should carefully study, and apply them to suit our convenience. Perhaps no one in this country has set a better example in this than the late H. H. Richardson. I do not favor the style of architecture chosen by him as a *modus operandi*, but cannot help being strongly impressed with the great principle that seems to guide all his designs. How little was Richardson really understood by most of the American architects is shown in the too numerous weak imitations and copies of his works. Instead of copying his works without understanding his motives, why not try to follow him in his principles? By doing so we would most assuredly make better progress toward the development of a national style. That we are in many respects ahead of the present European architecture is a fact only too well known. And what



facilities we have here compared with our brethren on the other side. A Richardson could not have existed in France, Germany or England. But unfortunately the freedom that we enjoy here to practice our art and demonstrate what we know without reference to preceding styles and their book rules, has also its dark sides. It leads to absurdities as well as to brilliant conceptions and advancements. This fact shows itself only too well in the depraved school of design practiced by some of our northwestern contemporaries, whose works are constantly perpetrated upon us through the medium of some of our prominent architectural publications. Why should not said publications draw the line between good and bad work; why should they not discriminate for the benefit of the student and subscriber?

Within the past few years such things as sketch clubs have been organized by draftsmen in various cities of the United States, object of said clubs being mutual instruction. The oldest and best equipped of these is the C. A. S. C. The efforts and results of this club have by no means been small since its organization, and the work produced by some of its members is indeed worthy of earnest consideration. The monthly competitions have at all times shown more study of architecture than those of similar clubs in the country. The C. A. S. C. is very near to the right road, but could be brought a little nearer by means of more conscientious decisions on the part of the judges for the monthly competitions.

### Architectural Students.\*

BY R. A. DENELL.

MR. PRESIDENT and Gentlemen: Josh Billings says, "There is many a man who can set a mousetrap to perfection, but not satisfied with such small game undertake to trap for bears and get ketched by the bears." These are my sentiments and I apprehend the bears find them always an easy prey.

"Art is a mistress who is won by no partial service," is another old saying of which, no doubt, you have all felt the pungency. Such art I struck when I undertook this paper. The different routes of thought that presented themselves to me became more numerous the more I gave the subject consideration, until they became bewildering in their multiplicity. Finally, I concluded to take the essence, so to speak, of their several suggestions for my theme and to change the title of my paper to "hints to architectural students." I hold that a student himself can come nearer home in giving pertinent advice to students than the elders of the profession, who have either forgotten the feelings that animated them in their student days or look back upon them as so many adolescent follies. Somehow, notwithstanding this, it seems to be necessary that great and mediocre mortals alike have to pass through the same general experience.

At this point I would like to make two quotations from Viollet-Leduc, in regard to the origin of the architect and the necessity for work. They are as follows:

"The master workman laid aside his functions and the architect was born."

"He built better than he knew,  
The conscious stone to beauty grew."

The real work as far as true architectural art is concerned.

For the architect or student, art is the visible expression of a satisfied desire; the embodiment of the beautiful and the useful; thus it befalls to the architectural student to learn how to combine these two stubborn qualities. To do this requires reasoning power, artistic taste and feelings, constructional ability and knowledge of man's life and its needs.

The first ten years of student life is to learn the artistic and constructional parts of the profession. The remainder can be deferred until forced upon us by actual practice, as it surely will be, as is proven by our prominent architects who rarely find time to touch the pen and pencil, yet the knowledge of which, gained in their student days, like a sixth sense, makes them masters of the business situation. The business part of an architect's work is of so much less scope than the strictly professional and is so easily attained by the emergencies of practice that it may be safely laid aside in student days to take care of itself as, if the business ability is inherent it will assert itself without effort when the time comes for its activity.

Now I come to some of the hints I desire to offer. Man and his desire hold sway, and at this point lies the position he will assume. At this point began the divergence from the forgotten and the great names of men and their works which are handed down in history. They were no smarter than many others at the outset of their career, but through their indomitable energy succeeded in acquiring an education and knowledge often under adverse conditions, so that it gave them their preëminence not only in a business sense, but an educational one as well.

You often hear young students say, "What shall I draw or study?" and you or somebody else replies in a free and know-all way, "Some of the most difficult branches of the work." The result is that the student does not gain anything, because the information, though perhaps good, is so far ahead of him that he cannot grasp it. It might have been said to him, "learn how to draw." But to him a thousand and one questions would arise. How, what and with what, and, besides, for what? Right here allow me to say that I have been there, and that if someone had told me of a certain and fixed object for every separate study, besides the reason, I would have known more today and taken more interest in my studies as I went along.

Now, I would like to lay a course of study from four to eight years in architecture that even more advanced students might benefit by. The course of studies that are generally laid down for college courses are so technical that it is almost impossible for a draftsman who

has not had the advantage of a high-school education to acquire them without the aid of highly paid tutors. Besides the disadvantage of doing all this work after, perhaps, a hard day's work at a similar line of study. As a help to foster courage for work hear what H. W. Longfellow says:

"The heights by great men reached and kept  
Were not attained by a single flight;  
But they, while their companions slept,  
Were toiling upward in the night."

The architectural student should mingle with artists, students, people of culture and education as much as possible, especially of artistic tastes and pursuits akin to his own. This is a strong point. Ideas are like families, they must be crossed or else they degenerate. Besides, all of you know the great amount of help and knowledge you can get by intercourse with other draftsmen; learning of their methods, styles, systems and mannerisms of working, which you can compare, criticise, deduce and adopt. It also helps to keep your mind on your work. It is a source of great encouragement even to observe the failings, faults and successes of fellow students, and one never really knows another's abilities until he works with him. They are generally so much exaggerated by ignorant persons that if one gets beyond a certain line he is jumped about twenty places at once. By coming in contact with the actual person, one, nine times out of ten, receives encouragement, and that of the best kind. One may see certain faults which will help to raise his own abilities in his own estimation, and this is a help, because of the encouragement it affords the person who had a case of big head before.

I would like also to offer a few miscellaneous thoughts which suggested themselves to me while rummaging for data which I think are all good to enthuse and encourage the student. To acquire taste is to become habituated to the good and beautiful, but to become habituated, we must learn to choose it, and this requires reason and education.

"The primitive artist was an observer but not a student." You will see by this, to be a genuine student itself is a task.

"The philosopher observes to compare, to know, while the artist does this and more, he endeavors to improve after knowing."

Art only is true and good which is in harmony with the manners, institutions and geniuses of the nations wherein it exists; and as notions differ, art should differ. This is the essence for that hackneyed problem, an American style.

Every man who is born an artist possesses his art by intuition, but this intuition can only be successfully developed by calculation and experience. We owe more to induction and knowledge gained by study than to intuition.

Architecture requires two operations of the mind, study and application of precedent.

#### COURSE OF STUDY.

The more you study the more you want to study, and if really interested there is no such genuine pleasure as study. It is, alas, too true, that the less you study the less you want to study. So all that have fallen out of the habit and who have tried again and again to re-start can, I think, if they first arrange some exceedingly attractive studies and set stated times for them, gradually at first; then, before they know it, they will have joined the other side. What it requires is determination and enthusiasm. What was at first a necessity becomes almost a craze.

For a start I would advise everybody to lay out a scheme of study, so as to have system and method. Put down the different studies: why, when and what for shall I study these more than others? In that way the greatest ground can be covered to the best advantage. The young man who intends to succeed must first have the faculties of the artist, and, beside this, must submit himself to a deliberate training, and those who would hold their own cannot afford to miss any opportunity.

The main idea of the earlier studies is to train the student in the knowledge and representation of form, and to develop his powers of designing. For these things not only is time required but undisturbed, concentrated study.

To do this, draw continually, mostly freehand, from photographs, sculpture, life, nature, casts; in fact, everything. For training in design, entering the C. A. S. C. competitions is fine practice. The scope is so wide and you see so many different studies of the same thing. I hope the competitions will grow in quality and favor. There is one great advantage in teaching yourself, and that is, what is self-taught is rarely forgotten.

Another of these earlier studies is the rudiments of algebra, and plain and descriptive geometry, as they are great cultivators of the imagination and clearness of conception which are absolutely essential, and which, also, too many designers lack. Drawing from memory is another great help. He who has this knowledge has perspective at his finger ends and also the correct representation of shadows and shades.

For line and line only, draw from the round, such things as vases, especially Greek ones. Draw them from photos if you cannot get the vases themselves, or casts of them.

Drawing from the round is the only thing that will give real command of form, and for this nothing is better than the figure pure and simple. A draftsman who can draw it easily has the power to draw anything.

This refinement of line drawing is wanting in the majority of architects' work. It is extremely offensive to one who appreciates it to see it butchered. Our best architectural works show this value of form in a greater or less degree, depending on the standing of the architect as an artist.

Draw also from photos, in line only, ornamental details on a large and small scale, so that all the refinements of line and detail can be clearly felt and shown, especially the Greek and Tuscan ornaments.

\* Paper read before the Chicago Architectural Sketch Club, July 1, 1889.



If a student does this conscientiously I feel sure that he will have an art feeling which will not be taken by any coarse or rude forms, and in which, besides, he will find an honest pleasure afterward in criticising the work of others from his plane of true feeling.

For educational purposes, the study of the five orders is indispensable. Some say that the orders are never used in the present day and therefore are of no use. To this I reply that there are certain musical exercises that form part of the training of all fine musicians which are never played for listeners. It is the training they give. They have been readjusted and criticised by some of the greatest men of knowledge of proportion and composition, and therefore are the most nearly perfect for studies. The study of them also develops the powers of dignity and elegance. One can see their influence in the best foreign and American works.

Learn how to draw, is the first, last and every study. To design it is necessary to draw, and examination will show that persons who design well draw well. In that I do not mean a picture maker or an artistic draftsman in that sense, but simply freehand work.

It is necessary to do away with the idea that artistic drawing is only an ornamental acquisition. A designer's drawing is not only his manner of speaking but also of thinking. As for the power of invention and proportion on which design depends they cannot be developed without the drawing. To acquire this one must do a great amount of drawing from nature. Draw from flowers and plants while fresh, so as to get the feeling of life the plants have. You should have them look as if they were growing, and with as few lines as possible.

The student should also store his mind with a great variety of ornamental details of all kinds. He should be able to draw them from memory, so that when he is designing he can call on them for suggestions and ideas, and on this depends a good deal of the freedom of the designer.

The student of drawing must not confine himself or work to one method, but go out to all, as some are best for one thing and some for others. I refer to pencil, pen, brush, color and charcoal. Of course, the pencil is the one that is to be worked with the most and, besides, it is a combination of brush and pen, owing to its powers of tinting or shading. If the pen or pencil only are used, the wielder thereof has a tendency to harden his work and sometimes to give it a lack of refinement of form, not to speak about color, light and shade. When drawing, by all means use a soft pencil. A hard pencil leads to stiffness and stops the freedom, owing to the rut in the paper and the pressure the pencil requires.

Charcoal is excellent for full-size details and large ornamental work, owing to its ease of erasing and power to cover paper. In the skillful hand it gives beautiful effects, but it takes a skillful hand to take advantage of its possibilities.

The pen is the most popular of all methods, owing to the ease of publishing pen drawings. It is too brilliant and full of character not to be popular; but, alas, it does not depict light and shade, nor the colors of surfaces. It is the hardest instrument to handle, and exposes a slovenly hand in a pitiful manner. A pen drawing is not true to nature, yet it can be used to great advantage in hoodwinking unsophisticated clients. To make a finished pen drawing is one of the very hardest things in a student's category of possibilities. Very few architectural draftsmen can cope with it, and it is the first thing amateurs usually tackle. They try to follow a pen drawing through all the intricacies of color, materials, picturesqueness, surroundings, light and shade, and what is the result? Jumble! It is a great pleasure to look upon such finished drawings as those of Meeker and Pennel, but then they are artists.

The brush is the only means of studying color, and now is becoming exceedingly popular, and not without good cause. I can see for it a great future, and I hope it will stay with us permanently. It will stop a student's too close study of line, and besides it is a great help for studying from nature. It fixes one's attention on masses before details and is alive to contrast and graduations; but above all is the breadth and repose of its work. There is a great charm in coloring, and, therefore, it becomes, instead of a study, a source of pleasure, and finally a craze to the enthusiastic student. From an educational point of view the brush is above all other methods.

The student must sketch from nature. Why? As a means of acquirement and expression, to store his mind with ideas, and to work out his ideas with freedom in designing; and besides that, to see the relation between actual work and drawings.

A sketch is a selection. To sketch one need not draw the object exactly as he sees it, but to take what he wants and reject the rest, and therefore the better the sketcher the more valuable become his sketches, and the more benefit he receives from them. Of course, a sketcher is not to be dead to the picturesque, but, as a source of study, he is to retain the subject architecturally. By sketching in this way (more) knowledge, power of rendering and picturesqueness all blend together.

A sketch must have some idea in view to portray; without this it is empty. If draftsmen would sketch more I think a certain amount of that crudeness and stiffness in their work would be eliminated, and that it would also improve their designing. A student should try and study out of the office the reverse of what he studies in the office. Study of constructed drawing, though it correct many of the gross errors into which draftsmen fall, and while it cannot be neglected, still it will never put a group of curves in perspective and suggest a bit of ornament. It needs the sensitive and skilled hand to do this, just as all machinery needs the skilled hand of man to guide it.

Out of door drawing will give one the memory by which he can draw well whatever his office work requires.

The best designer is not always the best draftsman, not because he has neglected to learn to draw, but because he has more designing

talent; yet if he developed his capacity in the same way the expert draftsman does his, the result of his work would be correspondingly greater.

The draftsman must not forget the design and yield to the picture when drawing, although the temptation be great. Design first, and let the rest be to brighten the effect and improve it. Picture-making when done in this way is fine training, as it cultivates the artistic sense on all sides. In picture-making one can make certain features prominent to suit his will.

It is a good thing for younger draftsmen to copy the work of our best draftsmen, and to do so until they have thoroughly mastered and made themselves familiar with several styles and methods of rendering. Yet the student must know what to choose so as not to copy bad drawings nor bad features. A brilliant design requires a brilliant treatment, and a simple design a simple one. A Spanish figure in a Gothic design would seem out of place. Drawing from photograph in sepia and pencil is an excellent study for everything.

A student can vary his work by spending certain evenings in reading. It is not necessary that he should read strictly architectural books, either. There are a great many of the finest novels which are of great architectural value to students, and, besides, in themselves a constant source of pleasure to read.

Take, for instance, "Marble Faun" or George Eliot's "Romola," etc. Then, again, some of Ruskin's works are very nice reading from a pleasure point of view. Reading is a great producer of enthusiasm, and a draftsman is nothing without it. I honestly think that nothing great artistically was ever done without enthusiasm and admiration as prime factors.

By reading one also can learn more about heating, acoustics, ventilation, drainage, engineering, than they could have in ten years' actual practice.

In all the aims of man, architecture is the one which suffers the most from imperfections, and which is criticised the most.

Now is our time, boys, and no one knows better than I that "procrastination is the thief of time."

Perhaps, gentlemen, this article is too much for one of my experience and ability to put before the Club, especially while there are members before me who are head and shoulders above me, architecturally. I hope, however, that you all will find some benefit from it, and forget from whom it came. I will give as an excuse, that the best workman is not always the best instructor.

### Instruction in Architecture.

THE Art Institute of Chicago announces that with the beginning of the new school year, Monday, September 23, classes in architecture will be opened as a part of the regular course of the art school. The prosperity and popularity of the Art Institute go far to insure the success of this important step, which all architects, designers and architectural students must heartily support.

In order that the classes may be available to draftsmen and other persons engaged in actual practice, they will be held three evenings a week, Monday, Wednesday and Thursday, and at the same time a drafting room or architect's studio will be provided, kept open at all times, day and evening, and visited, from time to time, by the teachers, like an architect's office. Instruction in elementary matters will be given by regular teachers, while lectures adapted to more advanced students will be given by distinguished architects. As regular teachers Mr. Louis J. Millet and Mr. William A. Otis are named, both men of careful theoretical training, and both in the actual practice of their profession. Mr. Millet is of the firm of Healy & Millet, decorators, and during a residence of six years in Paris he accomplished, with great credit, the whole course of architecture in the *École des Beaux Arts*, a thing which a very small number of American students have ever done.

The instruction in mathematics and construction will be chiefly in the evening, with incidental practice in drawing. The ground intended to be covered in a course of two or three years is in general as follows: In mathematics, elementary geometry, elements of conic sections, descriptive geometry, shades and shadows, perspective; in construction, principles of construction, strength of materials, use of tabulated data, problems of construction.

Of course, these studies naturally involve a certain amount of practice in drawing. Under the head of "Drawing and Architecture," instruction will be given in such subjects as linear drawing and the use of instruments, the study of orders, ornamental designing, and drawing from ornamental casts, while the regular classes of the art school will be thrown open to the architectural student in water colors, antique drawing, pen and ink and modeling. Access to the library and collections of the Art Institute constitute another valuable privilege. The friendly attitude of the architectural societies and of the sketch club toward such a serious effort to found an art school is assured. Among the well-known architects who have promised to lecture are John W. Root, W. L. B. Jenney, D. H. Burnham, I. K. Pond, John M. Ewen, and it is confidently expected that others equally competent will be added to the list.

It may be proper to add that the tuition fees will be held at the very moderate rates already established in the academic departments of the art school, and that all particulars may be obtained by applying to the secretary of the Art Institute.

The management of the Institute, with Mr. C. L. Hutchinson, the president, at the head, is warmly interested in this movement; but, since the institution is young, and has no endowment as yet from which to defray extra expenses, it is not without hesitation that so important a step has been ventured upon. It is earnestly hoped that it will receive the warm support of all its natural allies among architects, designers and educators.



## National Exhibition of Architectural Drawings.

THE praiseworthy project of the Cincinnati Architectural Club to hold a national exhibition of architectural drawings and sketches at Cincinnati for one week, commencing November 19, should interest every draftsman in the United States and Canada. The following circular has been issued:

The Cincinnati Architectural Club respectfully makes the following announcement:

Recognizing the great benefit arising from an exhibition of the above character to the craft, and desirous of creating a healthy improvement in the public taste as regards architecture, this collecting of architectural studies is undertaken.

This exhibition will embrace the work of all sketch clubs and prominent draftsmen in America and Canada.

Ample wall space and an excellently lighted hall have been secured; two most important factors for success.

As the exhibition is to be national, and consequently far-reaching in its character, the kindly coöperation of all architectural clubs is cordially solicited. In the sincere hope that this necessary assistance will not be withheld, the following statement is made:

WORKS EXHIBITED—Water-color studies, India ink, pen and ink sketches, perspectives.

WHEN TO SEND—All exhibits must be in Cincinnati by not later than November 10.

TRANSPORTATION—The cost of transporting, hanging and returning will be borne by the Cincinnati Architectural Club.

HOW TO SEND—All sketches must be properly packed and sent by express.

PRIZES—Hinkle gold medal (A. Howard Hinkle, Esq.), for best exhibit of club work. Anderson silver medal (Larz Anderson, Esq.), for best individual work among club members. The Builders' Exchange will offer a medal for best water-color perspective.

JURY—Three prominent architects will act in this capacity.

CATALOGUE—There will be an illustrated catalogue issued, with selected prize club designs, these designs to be in pen and ink.

TIME AND PLACE—The exhibition opens November 19, continuing one week, and will be held in Pike's Opera House.

Further information will be cheerfully given, and all letters of inquiry are to be addressed to John Zettel, secretary, Room 81, 227 Main street, Cincinnati. The schedule inclosed is to be filled up as promptly as possible and returned as directed.

Again inviting your valued assistance, I am respectfully,

G. W. E. FIELD, *President C. A. C.*

*Patrons*—A. T. Goshorn, A. Howard Hinkle, Larz Anderson, M. Louise McLaughlin, Clara C. Newton.

### COMMITTEES.

*Finance*—John Zettel, A. Stedman, G. W. E. Field.

*Advertising and Catalogue*—L. Mendenhall, D. Davis, L. G. Dittoe, A. Stedman.

*Decoration and Hanging*—A. O. Elzner, E. Moorman, F. Winkleman, M. Heister, H. C. Chaney.

*Correspondence and Soliciting*—John Zettel, G. W. E. Field, L. Plympton.

*Music and Reception*—L. G. Dittoe, Thornton Fitzhugh, A. Stedman, H. C. Carrel, John Zettel, J. P. Striker.

## Association Notes.

### MONTCLAIR, NEW JERSEY.

There is a movement to organize a sketch club of draftsmen at Montclair.

### WESTERN ASSOCIATION OF ARCHITECTS—BOARD OF DIRECTORS' MEETING.

There will be a meeting of the Board of Directors of the Western Association of Architects, on Tuesday, September 17, at the office of the secretary, Chicago, Ill., for the consideration of applications of membership and the transaction of other business.

### CHICAGO ARCHITECTURAL SKETCH CLUB.

A regular meeting of the club was held Monday evening, August 26. President Williamson opened the meeting, and called on Second Vice-President Christian to preside. Owing to absence from the city Mr. Wagner was unable to present his lantern views. The evening was filled in pleasantly by discussion of the value to architecture of water-color sketching from nature. It was decided to postpone the competition for a house doorway, and the rendering in pen and ink from photograph furnished, to allow members time for the Clark, Phimister, and other monetary competitions.

### DENVER SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.

The regular monthly meeting was held August 13, at the room of the society, President Nettleton in the chair. Twenty members were present. Joseph Philips Maxwell, of Boulder, now state engineer, and John Wellington Nesmith, president of Colorado Iron Works, were elected members. Communication from the chairman of committee of the American Society of Civil Engineers, asking that a committee be appointed from the society to confer with them to see if arrangements could be made for an affiliation between the societies, was received. Committee was appointed, consisting of Professor P. H. Van Diest, chairman, with Messrs. H. S. Aulls and Robert S. Rocklamb.

A committee of five, consisting of James R. Maxwell, chairman, and J. S. Green, Walter H. Graves, R. D. Hobart, J. C. Ulrich, were appointed to act with other committees of the state in collecting statistics, and waiting upon the United States senate committee on irrigation of the arid districts, which will meet in Denver about September 15, 1889. Professor P. H. Van Diest read a paper on mining in the Island of Sumatra by the Dutch two hundred and fifty years ago. The mining was done in the same manner as at present. The maps were quite ingenious, and illustrated all the country, showing sections and elevations together. The stockholders manipulated the stock a good deal as at present. The mines were very rich, as only \$600 ore was allowed to be shipped. A new company has recently been started and will reopen the mines which have not been worked for over one hundred years. The society adjourned to meet in two weeks.

## Our Illustrations.

Residence for Mr. Thomas A. Wright, Chicago; W. L. B. Jenney, architect.

Competitive design for city hall for Omaha, Neb.; Sidney Smith, architect.

Residence for Mr. A. V. S. Lindsley, Nashville, Tenn.; Charles K. Ramsey, architect, St. Louis, Mo.

Residence for Mrs. Mary Wilke, Wrightwood avenue and Sydney court, Lake View, Ill.; M. E. Bell, architect, Chicago.

The Chicago Home for Incurables, Burling & Whitehouse, architects. Located on the prairie south of Fifty-fifth street, near Drexel boulevard.

The handsome "Church at Philadelphia," published in August number is the Tabernacle Presbyterian Church, Thirty-seventh and Chestnut streets. T. P. Chandler, architect.

Cincinnati Architectural Club competition for a French Renaissance panel; first place, A. Stedman; second place, L. G. Dittoe; third place, G. W. E. Field; design by John Zettel.

Sketches in France; Thomas Mullay, del. Mr. Mullay, who left Chicago in June, for a bicycle sketching tour in Europe, writes:

"The corner house in sketch is of light buff sandstone, the next one brick and sandstone with plastered cement. There is another stone largely used here which resembles frothy slag that comes from a smelting furnace; this stone is plastered over, the mason working in the moldings. The Exposition buildings seem to have absorbed most of the architectural originality this year. The other new buildings are in the academical style, the most apparent deviation being in the carvings. In regard to planning, Chicagoans know their wants and are well supplied with ideas, but there are many little and tasteful things which an American architect can pick up in Europe and use with profit. Iron and glass construction are much used here, not as heavy as ours, probably from the lesser snow and wind pressure. France is full of picturesque objects, much more so than England. I expect to get a permit to sketch in the Exposition, also in and around Paris at the different galleries. There was an American artist here who was arrested for sketching without a permit, and all his notes, diary, etc., were destroyed. There are many restorations of old churches, hotel de villes, etc., in contemplation of which there are drawings and perspectives at the Exposition. There are at the Exposition full size architectural casts of several cathedral doorways and any amount of photographs and fine architectural drawings, enough to study for weeks. The fine ornamental work at the Exposition is all plaster cement. I beg your pardon for sending a wind mill, but many hundreds of your readers may recognize it, as it is on the celebrated race course and review ground of Longchamps. The tower of Sir William Wallace is just across the way. The casts, painted bronze color, are by the sculptor, A. Cain. There are many others which are just as good artistically, but I do not want to run the risk of drawing them, as they arrest strangers without much ado."

### PHOTOGRAPHURE PLATES.

(Issued only to subscribers for the Photographure edition.)

First National Bank Building, Ashland, Wis.

Germania Hall, Cleveland, Ohio; Cudell & Richardson, architects.

Masonic Temple, Philadelphia, Pa.; James H. Windrim, architect.

Roman Catholic Cathedral, corner Cathedral and Mulberry streets, Baltimore, Md.; Benjamin Latrobe, architect.

Residence of M. A. Hanna, Lake View avenue, Lake Shore, just west of city limits, Cleveland, Ohio; C. F. Schweinfurth, architect. Two plates; in one the front is shown, in the other the rear.

Calvary Baptist Church, Baltimore, Md.; J. A. & W. T. Wilson, architects. The church is of hammer dressed gneiss, laid in courses with black mortar. The dressing at angles; quoins around doors and windows, arches over openings, belt courses, water table, etc., of dark brownish red brick. The tablet in front gable is of molded terra-cotta. Roofs are of black slate. The interior has an open timbered roof of hard pine in natural color. The irregular shape of the lot has been taken advantage of in giving a picturesque outline to the building. The audience room measures 49 by 77 feet. The pastor's study is the quarter of a circle having a diameter of 21 feet. The dressing rooms are each 9 feet wide and can be used as bible class rooms also.

## New Publications.

ARCHITECTURAL STUDIES, Part IX, City Houses. Price \$1. William T. Comstock, publisher, New York.

The drawings are all, with one exception, the result of a competition given by *Building*. The designs are the best of those submitted, including two prize designs and two honorable mentions. The conditions of the competition required the house to be planned on a lot 20 by 100 feet, and to be used as the home of a professional littérateur.

PRACTICAL BLACKSMITHING. A collection of articles contributed at different times by skilled workmen to the columns of *The Blacksmith and Wheelwright*, and covering nearly the whole range of blacksmithing, from the simplest to some of the most complex forgings. Compiled and edited by M. T. Richardson, editor of *The Blacksmith and Wheelwright*. Illustrated. Vol. I. Price \$1.00. M. T. Richardson, Publisher, New York.

Notwithstanding the fact that every village and hamlet in the civilized world contains a blacksmith, and has ever since mankind learned the various uses of iron and steel, nobody has ever written a book on the art of blacksmithing.

A chapter has now and then appeared in works on mechanics, but these comprise the extent of the world's printed knowledge of an art without which mankind would relapse into barbarism. The present work is a compilation of practical articles which have appeared during the last ten years in the columns of *The Blacksmith*



and *Wheelwright*. Ancient blacksmithing and primitive tools are considered briefly, and then plans of shops, chimney building, forges, and descriptions of a great variety of tools are given. The illustrations are numerous, and the book would appear to be of great value to all workers of iron.

LOG CABINS; HOW TO BUILD AND FURNISH THEM. By William S. Wicks. Forest and Stream Publishing Company, New York.

This is a quaint book and beautifully gotten up in its presswork and typography, and, striking out in a new field of architectural instruction as it does, will undoubtedly find many gratified readers. It is nicely bound in muslin and board covers, and illustrated with seventy engravings, fifty-two of them giving details of construction, the others presenting views of log houses (summer residences, hunting and fishing layouts, etc.) at various places throughout the country, and belonging to prominent gentlemen and clubmen.

HINTS ON BUILDING. By Robert Grimshaw, author of "Steam Engine Catechism," "Boiler Catechism," "Plumbing Catechism," "Practical Training," etc. Second edition; published by the New York Practical Publishing Company, 21 Park Row.

This is a very readable little book of seventy-seven pages, by a layman who understands that a house for people to live in means something more than four walls and a roof. It is written for the "million," rich and poor alike, and, treating the subject of home building in detail in so clear and concise a manner that he who runs may read how easy it is to make a house a home where comfort and convenience is emphasized within and without. It is a plea as well for home ownership. Unpretentious as this little book is, and its aim being the education of the masses rather than to instruct the professional house planner, yet architects will not find it wasted time to give its pages a careful perusal, as it is the result of a common sense observation by a man who has "been there."

#### FROM MATERIAL DEALERS.

H. W. JOHNS MANUFACTURING COMPANY, producers of asbestos materials for mechanical, structural and household purposes, has put out a descriptive price list, which will be a convenient book of reference to architects and builders who are or may become interested in this line of goods, which include paints, varnishes, roof coating, pipe covering, etc.

"POSITIVE PROOF" is the title of a 224-page book in paper covers issued by N. G. Taylor & Co., of Philadelphia, giving a list with localities of 5,000 buildings on which the Taylor "Old Style" brand of roofing tin has been used. They are distributed throughout the entire length and breadth of the Union, and include many public and governmental buildings. A number of engravings accompany the long roster.

MR. G. W. MURPHY, dealer in sanitary specialties, 76 Dearborn street, Chicago, has just issued a handsomely printed 68-page catalogue, which must attract the attention of all interested in plumbers' supplies. The catalogue contains eighty odd finely engraved illustrations of the various specialties he trades in, such as syphon closets, washout closets, direct pressure closets, automatic tanks, drip traps, backwater valves and clean-outs, patent basins, patent traps, self-closing work, etc., many of the devices being novelties in this market, but of established reputation elsewhere. It is a useful book for architects, to say nothing of its value to master plumbers.

"A VISIT," is the title of a very artistically gotten up brochure in quaint muslin covers, by the Sherwin, Williams Co., giving a complete exposé of their celebrated paint works at Cleveland, Ohio, showing how their goods are made in every detail, and their special characteristics. The information is given in the form of a colloquy, and made the more interesting by thirty-four superb engravings illustrating the subject matter as it follows. It is a remarkably good specimen of printing and presswork, and is a credit to all who have had a hand in its appearance. It is 50 pages in volume.

MR. HENRY WORTHINGTON, of New York, has just issued a 76-page publication, entitled "The Worthington High Duty Pumping Engine at the L'Exposition Universelle de 1889." The text is in French and English on alternate pages, and is a full digest of all the merits and claims of this special engine. To every one, private individuals and corporations, at all interested in water supply, whether in large or small amounts, this book will prove interesting reading. It is amply illustrated, and contains tables, charts and maps that will prove valuable as references. Mr. Worthington has several of his pumps in operation at the present Paris Exposition, placed there under contract to furnish the necessary large water supply of that great world's fair.

#### Mosaics.

ARCHITECT CHARLES K. RAMSEY has been appointed United States government local superintendent for St. Louis. He succeeds Architect J. H. McNamara, resigned, and entered on his duties September 1. The appointment is a most excellent one.

THE UNPROFESSIONAL WAY TO GET BUSINESS.—The following advertisement appeared recently in the daily press: "Wanted—Live man to solicit business for a first-class architectural, western firm; to the right man an interest will be given; good connection indispensable."

JOHN CALVIN STEVENS and Albert Winslow Cobb, two energetic young architects of Portland, whose work may be seen in some of the most tasteful buildings of recent construction in and about the Forest City, have prepared a work which is now in the hands of a New York publisher, on what may be called common sense architecture; in

other words, architecture based on sound principles of art. It is intended to meet the needs of those who wish for tasteful, comfortable and convenient homes. The volume will appear in October. In addition to the text it will contain a large number of full page diagrams.

GEORGE W. MAHER and C. H. CORWIN have formed a partnership as Maher & Corwin, with office in the Insurance Exchange Building, Chicago. Mr. Maher's attractive designs have frequently appeared in this journal, and Mr. Corwin leaves an important position in the office of Architect J. L. Silsbee. The skill and experience of the new firm entitle them to win success.

THE galleries in the Louvre assigned to the exhibition of Renaissance work have been opened after a closure of three months. The contents have been rearranged. The most important addition is the tomb of Philippe Pot, who was seneschal of Burgundy. It had fallen into the hands of a private collector, who sold it to the French government for 1,000/. The tomb is placed in the Salle André Beau-neveu, and is one of the most interesting works of a period that was fertile in architectural sculpture.

THE awards of the great prizes in the section of painting of the Ecole des Beaux Arts were this year marked by peculiar circumstances. Last year the grand prix was held back, as none of the competitors' works was supposed to merit it. The Academy of Fine Arts had therefore at disposal two prizes, if adequate works were forthcoming. It so happened that the ten competitors produced pictures of unusual importance. The subject assigned was "Christ Healing the Paralytic." M. Gaston Thys, of Lille, and M. Ernest Joseph Laurent, of Gentilly, were each awarded a grand prix. The "premier second" was gained by M. Daugny, of Gagny, and the "deuxième second," by M. Lenoir, of Angoulême. It will be seen that the successful artists come from provincial towns.

DR. C. L. GOEHRING, of Allegheny City, Pennsylvania, has succeeded in perfecting a wonderful machine, one that does geometrical wood carving in over two thousand patterns, for outdoing the hand-work of the most skillful hand-carver, and with a capacity up to 10,000 lineal feet per day. The beauty of this machine carving is that the patterns may be combined or "massed" in a way to produce most intricate, and at the same time, beautiful, results. The adaptation of the product of this unique machine to ceilings, wainscotings, panels and kindred interior finish of buildings opens up an area of wood decoration in architecture beyond indication, as it may be of any of the soft or hard woods, while the cost is merely nominal. Samples of this machine carving have been shown to leading architects in this city and all were favorably impressed with its beauty and adaptability. None of this work has yet been put on the market, but a company is now organizing to go into the manufacture, and no doubt it will soon be familiarly known among building materials.

AS THE cradle of the American Kindergarten and the Manual Training School, and for its many other excellent public and private day and evening schools, St. Louis has long been known as one of the most progressive of American cities. It now offers another innovation in the shape of a drawing school, which a Mr. Henry Maack has conducted for some years, for the purpose of teaching mechanics enough of descriptive geometry and drawing to enable them to work intelligently from the plans of architects or engineers, to take off quantities correctly, and to get out the working details which architects do not furnish usually, such as the various lengths, bevels and miters in hip roof framing, etc. Mr. Maack, himself a practicing architect, and a recent graduate of the German technical schools, is introducing the same methods here, with encouraging success, which are employed there. Possibly, some of his willful pupils may insist on hanging out their shingles as architects on the basis of what they have learned at his school, but it is his purpose to discourage this, and to instil into them an ambition to excel as foremen in the direction of constructive operations. His enterprise merits success and imitation in other cities. More intelligent mechanics are needed in every trade, men who can understand drawings and lay out work.

AN event of great importance and interest to architects and engineers is the exhibition of electricity in all its most recent phases and applications, which is to form a prominent feature of the St. Louis Exposition this year, from September 4 to October 20. It may be remembered that two or three years ago there was held in Philadelphia an exposition solely devoted to electricity. Since then many improvements have been made, and all these will appear with new wonders in the St. Louis exhibition, occupying nearly the whole of the north nave. There will be all sorts of street car electric motors, also an electric road carriage, electric lighting in every form and color, electric stoves that will cook without fire, smokes, ashes or soot—nothing but a push-button—electric heating stoves, the welding of metals by electricity, surgical electric appliances, and last and perhaps greatest of all, the phonograph. This is the sixth consecutive year of the St. Louis Exposition, which is unique among all similar institutions in this country for its continuous and ever growing success. The admissions are uniformly 25 cents a head. In 1884 (the first year), the receipts were \$92,231.35; in 1885 they were \$106,786.32; in 1886, \$124,344.85; and in 1887, \$126,913.91. No other city in America has held an exposition on such a scale for more than one year at a time.

THE prospectus of the term of 1889-90 of the Art Schools of the Metropolitan Museum of Art, Central Park, Fifth avenue and Eighty-Second street, New York, is now being distributed from the press. The term begins October 2 next, and ends April 30, 1890. Mr. Arthur Lyman Tuckerman, manager, has just returned from an extended tour of inspection of the art schools of Europe, with a view of perfecting the system of this school, and there is but little question, under



his intelligent management, and being in immediate connection with the museum collections, that it will continue to grow in public favor. Last year the attendance numbered upward of three hundred students. It may be of interest to draftsmen, those who aspire to become architects in the future, to state that the class in architecture is conducted by Manager Tuckerman. The course includes the history and principles of architecture, especial attention being given to theory of design. This class is conducted on the system adopted by the great schools of Europe, and the instruction is daily. The price for the school year is \$25.

### Building Outlook.

OFFICE OF THE INLAND ARCHITECT, }  
CHICAGO, September 10, 1889. }

Our advices from a large number of manufacturing and commercial centers for the past sixty days, confirm all that was said earlier in the season, relative to commercial, manufacturing and building activities. It is to be regretted that the facilities for gathering news of building operations, and the manufacturing of building supplies, are so meager; but it is evident that the past season has been one of exceptional activity, and that very little, if any, disappointment has been experienced in any branch of the building trade. Not only in the larger cities, but in towns and villages, and throughout the rural sections, has the building of small houses been actively pushed, and work is still being prosecuted. Labor is well employed and paid. The building and loan associations are all prospering. There is a heavy demand for money for building purposes; rates of interest are fair and rents are satisfactory; houses, singly and in blocks, sell with greater promptitude than usual; real estate can be had almost everywhere at reasonable rates, and capital is finding inducements for investment in houses of moderate cost. This statement applies particularly to the West and Northwest, and especially to those sections which new railroads have recently brought within reach of markets. Throughout the South, the same condition of things exists, though in a somewhat less degree. Manufacturing establishments are multiplying, and as a consequence, the demand is growing for small houses for workmen. All through the Ohio Valley a great deal of building has been done this season. In the Middle and New England States there has been no falling off. Boston statistics show a great outlay for all kinds of building purposes. In New York statistics are not yet available, but it is probable that the excess in building, as compared to last year, will be shown to be from twenty to twenty-five per cent. In Philadelphia the increase is about as large. In Pittsburgh, Cleveland and several other cities throughout the interior, there has been quite a rush in building. All of the great industries are prosperous. The iron trade is the most active of all. Prices have advanced, and a further advance is likely to take place. The railroad companies are stiffening their rates, although there is as much harmony among them regarding the division of traffic as ever, particularly in the Northwest. In other sections the difficulties are not so serious. In the lumber trade great activity prevails, but the supply of lumber is just large enough to keep prices in favor of buyers. The inroads of southern lumber in northern markets continues. Sawmill building is still engaging a great deal of capital, especially through the South and in the far Northwest, particularly on the Northern Pacific coast. Coal mining operations have not been as profitable this year as last, but the production of coal in the aggregate will show an increase. The financial situation is regarded as strong. For some weeks past financiers have been apprehensive of a depression, or something akin to a panic; but the wiser heads have not anticipated such a result. The recent action of the secretary of the treasury in purchasing a large amount of bonds, shows that the policy of the government will be in harmony with the business interests, and that sufficient money will be thrown on the market, from time to time, to ward off any threatened stringency. Commercially, the country is strong and prosperous. A multitude of new enterprises are springing up, among them, ship yards, boat yards, tunnel building, railroad building and many others. Within the past thirty days four or five railroad lines have been projected, one 1,500 miles long, another 900 miles, and several others, varying from 100 to 300 miles each.

### Synopsis of Building News.

**Blair, Neb.**—Architect O. H. Placey, of Lincoln, Neb., has made plans for a Court House, 70 by 100 feet, to be erected here next season; construction, brick and stone; hardwood finish, steam heat, electric lighting, tiling, etc.; cost \$10,000.

**Chicago, Ill.**—There is scarcely any change or at least any noticeable change in the building situation. While comparatively few architects are fully engaged with work, most have something in hand present and prospective. The following have matured or are engaged in perfecting designs and plans:

Architect C. E. Lohmann: For T. D. Thompson, a three-story and basement flat building, 22 by 54 feet; the front will be constructed of St. Louis pressed brick, with Euclid stone trimmings; cost of building, \$5,000.

Architect F. L. Lively: Sunday school room for Irving Park M. E. Church Society; will be one-story and basement, 35 by 65 feet; construction, frame, with stone foundation; cost \$5,500.

Architect H. S. Jaffray: For Carrousal Co., Carrousal Building, to be erected on Lincoln avenue and Center street. The building will be pentagon shaped, owing to the formation of the lot. The design is for a quite handsome building. The walls will be of pressed brick with galvanized iron ornamentation; a large dome will rise in the center, and an office and a storeroom, besides boiler and engine rooms are provided for; cost of structure, \$10,000.

Architect C. J. Warren: For J. T. Keeney, three-story and basement residence, 40 by 60 feet; construction, St. Lawrence granite, red tile roof, tile floors, hardwood finish throughout, electric bells and burglar alarm, etc.; cost \$50,000. For same party, six-story flat building, 90 by 85 feet; brownstone front, with galvanized iron trimmings. For Mr. Raymond, house at Lake Forest, Ill.; cost \$10,000.

Architect Henry Sierks: For Chas. Fuhrman, of Watertown, Wis., handsome residence, to cost \$10,000. Taking figures on manufacturing plant to be erected on Schiller street by the Western Wheel Works Co. There will be three separate four-story buildings, the main building will be 187 by 93 feet, the others 25 by 93 and 36 by 37 feet, respectively.

Architect Thos. W. Wing: For R. E. Moss, three-story and basement store and flat building, 28 by 77 feet; Bedford stone front; steam heat and modern conveniences; cost \$10,000.

Architect W. D. Cowles: For Mrs. D. S. Mugridge, two-story and basement residence, 25 by 50 feet; front, stone, slate and copper; sides, pressed brick; hard and whitewood finish, mantels, etc.; cost \$6,000.

Architect Clarence Stiles: Club House, at La Grange, Ill.; frame construction on stone foundation; hardwood interior; furnace heat; cost \$10,000. For

J. J. Brown, of Momence, Ill., two-story stone building; 30 by 80 feet; brick and stone exterior; cost \$9,000. For J. W. Fernald, two-story and basement and attic residence; pressed brick and stone, ornamental glass, wood mantels, furnace heat, etc.; cost \$8,000.

Architect J. Wagner: Remodeling Section C of Union Warehouse, making it cold storage; cost of alterations, \$30,000. For Houghtaling & Caruthers, two buildings to be erected on Clark street, between Harrison and Polk streets. The foundations will be laid for a seven-story building, but only two stories and basements will complete present construction; pressed brick fronts, iron columns, steel beams and girders; cost for present construction, \$25,000.

Architect W. Henri Adams: For F. M. Talbot, three-story and cellar residence, 23 by 74 feet; rock-faced Bedford stone front; stone gable, hardwood finish, hot water heat, electric lighting, electric bells, wood mantels, gas fires, etc.; cost \$14,000.

Architect W. W. Wheelock: For F. Crumbaugh, three-story and basement store and flat building, 80 by 102 feet; brick and stone construction; cost \$25,000. For Congregational Society, Decatur, Ill.; church edifice, 75 by 120 feet; pressed brick and field boulders; cost \$23,000. For M. B. Mooney, three-story store and flat building, 22 by 50 feet; pressed brick and stone; cost \$7,000.

Architects Flanders & Zimmerman: For M. Dickenson, two two-story flats containing eight flats in all, 45 by 65 feet; pressed brick, with stone trimmings; cost \$8,000.

Architects Treat & Foltz: For O. M. Powers, seven-story and basement, store, office and college building, 39 by 170 feet, to be erected on Michigan avenue and Monroe street; contracts let; first-story buff sandstone, balance pressed brick and terra-cotta; electric lighting, elevators, steam heat, etc.; cost \$125,000. For James Bolton, three-story and basement residence, 45 by 60 feet; buff sandstone; hardwood finish in elaborate style; steam heat and modern improvements; cost \$45,000. For M. B. Hull, three-story and basement residence, brownstone front; hardwood finish; hot water heat; cost \$26,000; contracts let; also let contracts for a two-story and basement residence on Calumet avenue; stone front and hardwood interior finish; cost \$10,000. For C. S. Dennis, three-story and basement residence; frame, with hardwood finish on first floor; cost \$7,000. For W. P. Patterson, residence, frame; cost \$6,500.

Architects Bauer & Hill: Pedestal for the Judge Lambert Tree's monument of Robert Cavalier de La Salle, presented to Lincoln Park; Wisconsin red granite, rock-faced, with bronze tablet. For Polish Publishing Co., three-story, basement and attic publishing house, 50 by 104 feet, to be erected on Milwaukee avenue near Division street; basement to be used for composition and press rooms, first story by editors' rooms and book stores, upper stories arranged in flats; St. Louis pressed brick, with brownstone trimmings; cost \$40,000. For Benedictine Brothers, of Peoria, Ill., monastery and college, to be located near the Webster farm on a site 150 feet above the Illinois river. The structure will have a frontage of 500 feet and a depth of 400 feet, with two large court-yards; will be three and four stories and basement high; pressed brick, with stone trimmings; corridors and stairs fireproof; electric lighting; steam heat, etc.; style Romanesque; cost \$100,000. For City Treasurer Roeding, summer residence at Lake Geneva; frame in picturesque style; cost \$5,000. For G. W. Kaendall, two-story and basement flat building, 24 by 65 feet; Bedford stone front; cost \$6,000.

Architect W. A. Otis: For W. Rimmer, residence, 25 by 60 feet; two stories and basement; pressed brick front, brownstone trimmings; oak and pine finish in natural colors; mantels, grates, etc.; cost \$5,000. Alterations and addition to factory building for Dr. Sawyer; cost \$8,000.

Architect Thomas Wing: For R. E. Moss, three-story store and flat building, 25 by 70 feet; Bedford stone front; cost \$9,000.

Architects Geytes & Randak: For M. Ponie, four-story and cellar flat building, 25 by 86 feet; pressed brick, stone and iron front; cost \$10,000.

Architect W. W. Clay: Carrousal Building, 100 by 116 feet, to be erected on W. Madison, between Leavitt and Oakley streets; cost \$10,000. For W. A. Fuller, residence, 45 by 65 feet; Amherst buffstone and tile; interior elaborately finished; cost \$75,000.

For W. A. Fuller, two-story residence, 45 by 65 feet, stone construction all round, hardwood cabinet finish, marble floors, plate glass, hot water heat, etc.; cost about \$80,000.

Architects Almquist & Klebert: For Evangelical Lutheran Society, of St. Paul, Minn., church edifice, 36 by 60 feet; pressed brick front, with stone trimmings; Georgia pine finish; cost \$5,000.

Architects Wallcott & Son have plans on the boards for a three-story store and flat building, and a row of six dwelling houses.

Architect Oscar Cobb: For Ambler & Sons, of Salem, Ohio, a two-tier opera house, with a seating capacity of one thousand; brick construction; cost \$25,000.

Architect J. Sidney Villere: For J. C. F. Royer, three-story double flat, 30 by 32 feet; brownstone front; hardwood finish; wood mantels, bath, etc.; furnace heat and modern improvements; cost \$8,000.

Architect Otto H. Matz: For Rudolph Weber, remodeling stone front building, 31 Washington street; cost \$20,000. For Hanover College, Indiana, chapter house; frame, on stone foundation.

Architect A. Druding: Catholic church, Green Bay, Wis., 56 by 143 feet; pressed brick, with stone trimmings; slate roof, electric gas lighting, hot water heat; cost \$30,000. Catholic church, with basement; Birmingham, Ala., pressed brick, slate roof, two towers, clear stories, rich ornamental groined ceiling, ornamental tiled vestibule, electric lighting, steam heat, most approved ventilation, ornamental stained glass windows, with figure work, altars, pews, etc.; cost \$95,000. Catholic church, Wheeling, W. Va., 40 by 90 feet, with tower 110 feet; pressed brick, slate roof, hardwood finish, electric lighting, furnace heat; cost \$12,000. Catholic schoolhouse, Piqua, Ohio, 56 by 106 feet; two stories, with basement, arranged for four schoolrooms, with hall over head the entire space of the building; will be brick construction and provided with best systems for heating and ventilation; cost \$22,000. Connected with this schoolhouse is to be built a small convent, two stories in height, 44 by 56 feet. The design provides for a French roof and basement; construction brick, interior hardwood finish; cost \$9,500.

Architect Perley Hale: For L. A. McDonald, block of flats, four stories high, comprising twenty-four flats in all; 100 by 55 feet; brownstone first two stories, above pressed brick; have towers on the ends; hardwood finish, mantels, bath-rooms, and all modern conveniences; cost \$50,000. For D. W. Miller, three-story residence, 30 by 40 feet; cost \$10,000. For P. Achten, two-story flat building, 25 by 50 feet; cost \$2,500. For C. E. Cruickshank, three two-story flat buildings; pressed brick; cost \$18,000. Plans under way for a \$15,000 flat building, to be built on North Clark street.

Architect L. G. Halberg: For Mrs. Porter, three-story and cellar residence, 26 by 40 feet; stone front; cost \$5,000. For Mrs. Mary Dewey, two-story and basement residence, pressed brick front; cost \$6,000. For W. M. Howland, three four-story stores, 60 by 50 feet each; stone fronts, plate glass; cost \$20,000. Taking figures on Hospital Building to be erected at Bowmanville, Ill., by the Swedes, to be called "The Swedish Home of Mercy"; will be two stories, attic and cellar high by 110 by 43 feet; will have two wards, baths, dining-room, kitchen, offices, etc.; furnace heat; cost \$20,000.

Architects Lutken & Thisslen: For E. Seaberry, three-story flat building; pressed brick and stone; cost \$16,000.

Architects Griesser & Martizen: For Dan F. Burke, two-story and attic residence, 28 by 60 feet; stone front, balance of exterior pressed brick with stone trimmings; hardwood finish and modern conveniences; cost \$12,000. Under way, plans for a handsome two-story residence.

Architect G. Grussing, Jr.: For Capt. J. Connelly, two-story and basement residence, 34 by 66 feet; Carbondale stone front; hardwood finish, electric lighting, improved plumbing and modern conveniences; cost \$5,500. Under way, plans for a seven flat building, to be erected on the West Side.

Architect J. A. Thain: For M. Barbe, three three-story houses, 30 by 48 feet each; stone fronts, hardwood finish, wood mantels, bath, laundry, etc.; furnace heat; cost \$25,000. For E. C. Hulling, three-story and basement residence with pointed roof, 37 by 83 feet; stone and pressed brick front, slate roof; hardwood finish first and second floors; steam heat, etc.; cost \$30,000. For J. L. Gatzert, three-story and basement residence, 28 by 78 feet; stone front, hardwood finish, mantels, furnace heat; cost \$15,000.

Architects Ostling Bros.: For O. J. Nelson, four-story, basement and attic store and flat building, 82 by 100 feet; brick, stone and iron; Bedford stone front, marble vestibules, hardwood finish; cost about \$65,000. For Dr. M. Schycker,



two-story and basement residence, 25 by 56 feet; pressed brick and stone, hardwood finish, wood mantels, electric lighting, electric bells, speaking tubes, etc.; cost \$7,000. For A. Jereberg, two-story and basement flat building, 22 by 88 feet; pressed brick, with stone trimmings; cost \$8,000. For B. S. Theodorson, four-story and basement building, 24 by 40 feet; pressed brick with stone trimmings; cost \$7,000. For William Conners, two-story, basement and attic addition, 22 by 47 feet; and alterations to building on Hudson avenue; cost \$4,000.

Architect Theo. Karle: For H. Hagemann, two three-story and basement apartment houses, 60 by 75 feet; Connellsville pressed brick, with terra-cotta trimmings, steam heat and modern interior fitting; cost \$18,000. For F. C. Long, two-story basement and attic residence, 32 by 72 feet; rock-faced stone basement, St. Louis pressed brick front with Bedford stone trimmings, slate and tin roofs, hardwood finish, mantels, grates, bath, steam heat, etc.; cost \$15,000. For Mrs. M. Benedict, two-story, basement and attic residence, 31 by 74 feet; rock-faced basement, St. Louis pressed brick front, slate roof, hardwood finish, hot water heat, etc.; cost \$15,000. Remodeling Chicago Journal Building, making partial new front and fitting upper portion to be used by Saratoga Hotel. Taking figures; estimated cost about \$35,000.

Architect E. Gallanner: For F. G. Griffin, block of three-story flats, 28 by 75 feet; pressed brick and Bedford stone front; cost \$16,000. Taking figures on three-story store and flat building, 26 by 85 feet; pressed brick with blue Bedford stone trimmings; estimated cost \$13,000. For T. Cunningham, two-story residence, frame, hardwood finish, modern conveniences, furnace heat, also barn; cost \$12,000.

Architect R. Dalgren: For Geo. Gnanther, two-story and basement flat building, 24 by 80 feet; brick and stone; cost \$6,000.

Architects Marble & Lamson: For Adams' Bros., three-story livery stable, 50 by 160 feet; pressed brick and stone; cost \$12,000.

Architect F. E. Faber: For G. W. McLester, two-story and basement flat building, 22 by 50 feet; pressed brick front with Michigan green-buffstone trimmings, modern improvements; cost \$3,500. Letting contracts for four-story and basement flat building, 37 by 117 feet; pressed brick, with stone trimmings, hardwood finish, etc.; cost about \$25,000; G. D. Tomaso owner; foundations commenced.

Architect S. Linderoth: For C. P. Anderson, three-story and basement store building, 25 by 83 feet; pressed brick front with stone trimmings, hardwood finish, plate glass, cast-iron columns, slate and galvanized iron work, etc.; cost \$10,500. For W. Williamson, two-story and basement residence, 27 by 50 feet; pressed brick and stone, hardwood and pine finish, etc.; cost \$5,500. For Mrs. Margaret A. C. Brown, two-story and basement residence, 35 by 52 feet; interior finish in brick, oak, sycamore and redwood, wood mantels, stained glass, baths, conservatory, etc. This is a novel and beautiful design and a new departure in interior construction; basement rock-faced stone, above frame; cost \$6,000.

Architect A. Cndell: For J. H. Weiss, residence, Portage rock-faced front, steam heat and modern improvements; cost about \$50,000. Making plans.

Architects Adler & Sullivan are making drawings for a Polish and Russian manual training school building for children. The site will be on the corner of Clinton and Judd streets. It will be four stories in height, with an area of 60 by 100 feet; construction will be of brick and stone, and will be provided for steam heat; estimated cost about \$30,000. Also making plans for a front addition to the residence of Mr. Wirt Dexter, to be three stories in height, 50 by 20 feet area, rock-faced stone, elaborate interior work; cost \$25,000.

Architects Thomas & Rapp have planned and are letting the contracts on a four-story factory, 50 by 220 feet, for the Tudor Buggy Co., brick and stone; cost \$25,000. Also for C. Steinmetz, a four-story flat building, 48 by 58 feet, pressed brick and stone; cost \$20,000. Also for Judge Garnett, three-story residence, 30 by 72 feet; also four-story flat building, 40 by 100 feet, to be built on the North Side, pressed brick and stone, hardwood finish, steam heat, etc.; cost \$20,000.

Architects Furst & Rudolph: For the Board of Education, two additional three stories and basement schoolhouses, 87 by 133 and 120 by 87 feet, respectively, pressed brick and stone, steam heat, etc.; cost \$63,000 and \$65,000.

Architect A. F. Boos: For M. Sieben, four-story and basement addition to store and flat building, brick and stone, copper, galvanized iron and slate and ornamental glass; cost \$10,000.

Architect Fred Wolf: For S. Donan, Tacoma, W. T., brewery plant, consisting of brew, malt and boiler houses, elevator, warehouse, etc., frame construction; cost, with machinery and boilers, \$150,000. For C. S. Centline, Fort Wayne, Ind., brewery plant, stone and iron construction; cost, with fixtures and machinery, \$50,000. For Schlitz Brewing Co., two six-story ice houses, 120 by 65 feet; cost \$100,000. For C. F. Rankin & Co., brewing plant at Piqua, Ohio; cost \$75,000. For the J. Houck Brewing Co., Cincinnati, Ohio, six-story malt house, 54 by 39 feet, five-story warehouse, 28 by 70 feet; cost \$30,000. For Lake View Malleable Iron Works, three-story foundry, 80 by 80 feet; cost \$20,000. For self, four-story and cellar manufacturing building, 124 by 122 feet, brick and stone; cost \$20,000.

Architects Schaub & Berlin are making plans for a block of stores and flats to be built on North Halsted street, Bedford stone front; cost about \$35,000. Also for a four-story flat building to be built on Franklin street, pressed brick and stone front; cost \$10,000. Also a three-story flat building to be built on Ohio street; cost \$10,000.

Architect M. L. Beers: Making plans for an Industrial School for boys to be erected at Glenwood, pressed brick with terra-cotta trimmings; cost about \$40,000. For H. Harwood, residence, 25 by 58 feet; cost about \$10,000. Four-story addition to Oakwood Retreat, Lake Geneva; cost \$25,000.

Architect O. W. Marble: For W. A. Stanton, three-story residence, 24 by 73 feet, brownstone front, hardwood finish, wood mantels, stained and plate glass, hot water heat, etc.; cost about \$10,000.

Architects Beeman & Parmentier: For F. Y. Bennett, ten houses, to be built at Kenwood; frame; two stories, 22 by 45 feet each; cost \$40,000. For D. M. Fowler, two-story barn; 50 by 30 feet; cost \$2,500. For E. F. Gordon, barn; cost \$1,800. For V. R. Kerr, two-story and attic residence, 40 by 50 feet; stone front, hardwood interior; hot-water heat, etc.; cost \$20,000. For Bernritten Manufacturing Company, frame building; cost \$4,000. For W. L. Beeman, two-story and attic residence; stone front, modern improvements; cost \$8,000.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall.

Messrs. Crapsey & Brown report, among other plans, those for the Milford Town Hall, a building about 97 by 60 feet, three stories high, of pressed brick, and tin roof. There will be a hall with complete stage arrangements, while underneath will be a jail, council chamber, toilet rooms and engine house.

This firm has also prepared plans for a large factory building for the Pettibone Manufacturing Company. It is six stories high, brick, iron work, tin roof, elevators, fireproofing, fire escapes. The contractors are W. H. Stewart's Sons.

Mr. Henry E. Siter has drawn plans for the Mt. Auburn Presbyterian Church. It is a beautiful building for mission purposes, and is built of brick and stone, slate roof, stained glass, etc.; cost \$9,000, and J. Griffith & Sons are the contractors.

This architect has also drawn plans for a schoolhouse; cost \$40,000. Address, Board of Education.

Lucien F. Plympton has drawn plans for C. W. Morrison, Oberlin, Ohio. The house is of frame, two stories high, ten rooms, stained glass, laundry fixtures, plumbing, etc.; cost about \$3,500.

At Milldale, Ohio, a frame church for the Methodist congregation is being built under plans by S. W. Rogers, of this city. There will be stained glass, pews, altar, furnace, etc.; cost \$3,500.

Samuel Hannaford & Sons report plans for a pressed brick residence for Rev. J. M. Anderson, Cumminsville, city. It will be two-and-a-half stories high, have terra-cotta panels, hardwood finish, inside blinds, wood mantels, stained glass, etc.; cost \$6,000.

William Stanton Robinson, architect, has drawn plans for a residence for H. M. Ruslon, Esq., city, to be of frame and shingle, shingle roof, outside blinds, wood mantels, pine finish, and to contain eleven rooms; cost \$5,000.

Also for M. W. Roberts (care architect) a three-story factory, 100 by 60 feet, of brick, stone trimmings, architectural iron, elevators, fire escapes, tin roof, etc.; cost \$20,000.

Emil T. Bande has prepared plans for Mr. H. Goldenberg for a brick house, two-and-a-half stories, twelve rooms, furnaces, pine finish, laundry fixtures, tin roof, etc.; cost \$3,500.

**Detroit, Mich.**—There is no observable change in the building situation from the past two months. Below will be found a list of the work among the several architects named during the month of August. There were 244 permits

for new buildings issued during August at an aggregated estimated value of \$520,755, and forty-eight permits for alterations and additions at an aggregated estimated value of \$44,055, making a total of \$564,810 for the month.

In the way of news I report the dissolution of the firm of Van Leyen & Preston, architects, which was dissolved by mutual consent. Mr. Van Leyen takes the firm office and Mr. Chas. A. Preston removes to the new Whitney Opera House Block on Griswold street.

Architect Jas. E. Mills: For self, two-story dwelling, 32 by 46 feet; frame, with shingle roof; cost \$3,800. For J. C. Day, two-story dwelling, 35 by 55 feet; brick, with stone trimmings, slate roof; cost \$8,500.

Architects Donaldson & Meyer: For Seely Manf. Co., four-story factory building, 50 by 130 feet; brick and stone, gravel roof; cost \$17,000. For Mrs. Barnard, two-story dwelling, 40 by 46 feet; brick and stone, slate roof; cost \$4,700. For Unitarian Society, church building, 74 by 138 feet; brick and stone, slate roof; cost \$40,000.

Architect P. Dederick: For W. Brody, three two-story dwellings, 60 by 60 feet; brick and stone, gravel roof; cost \$7,000. For A. Gotle, three two-story dwellings, 60 by 60 feet; brick and stone, gravel roof; cost \$7,000. For P. Gornelson, three two-story dwellings, 60 by 60 feet; brick and stone, gravel roof; cost \$7,000.

Architect J. Schumann: For Polish R. C. Society, church and school building, 80 by 120 feet; brick and stone, slate roof; cost \$19,000.

Architect G. W. Lloyd: For David Whitney et al., five-story double store building, 60 by 100 feet; brick and stone, gravel roof; cost \$11,000. For R. C. House of Good Shepherd, three-story home, 39 by 80 feet; brick and stone, slate roof; cost \$11,000. For R. C. Detroit College building, three stories, 206 by 130 feet; brick and stone, slate roof; cost \$75,000.

Architects Mason & Rice: For Mrs. E. P. Nichols, two-story dwelling, 28 by 78 feet; brick and stone, slate roof; cost \$10,000.

Architect G. W. Malcolmson: For F. J. Hill, two-story dwelling, 30 by 50 feet; brick and stone, slate roof; cost \$5,000.

Architects Spier & Rohms: For J. B. Norris, block of twelve three-story dwellings; brick and stone, gravel roof; cost \$8,000.

Architects Hess & Roseman: For J. S. Jennings, two-story double dwelling, 43 by 60 feet; brick and stone, slate roof; cost \$12,000.

Architects' names not reported: For A. Anderson, block of two-story stores, 53 by 55 feet; brick and stone, gravel roof; cost \$7,000. For R. C. Parish, two-story school building, 78 by 80 feet; brick and stone, shingle roof; cost \$17,000. For J. Kegel, two-story double dwelling, 48 by 50 feet; brick and stone, gravel roof; cost \$4,000. For S. F. Hodge & Co., two-story factory building, 33 by 63 feet; brick and stone, gravel roof; cost \$4,000. For Samuel Harrison, two two-story dwellings, 26 by 40 and 36 by 40 feet; frame, shingle roof; cost \$4,000. For J. B. Morris, two-story school building, 52 by 63 feet; frame; shingle roof; cost \$6,000. For City Street Railway Co., two-story barn, 43 by 60 feet; brick and stone; slate roof; cost \$12,000.

**Evanston, Ill.**—There has been unusual activity in the building line in Evanston and vicinity this season, somewhere about one hundred new buildings including additions to buildings have been constructed, under way and to be constructed in the immediate future.

Architect I. A. Jennings reports the following: For Dr. O. H. Mann, four-story block, 106 by 100 feet; pressed brick with granite trimmings; iron fronts, plate glass; hardwood finish, hot water heat, and modern appliances and conveniences. The building contains the Evanston postoffice; the upper portion being designed for a Masonic temple. The fraternity occupy the entire third floor, which has been arranged to meet the wants of the order in lodge rooms, etc.; cost of structure, \$38,000. For Mrs. C. A. Northrup, two-story addition to present block, 26 by 80 feet; cost \$6,000. For F. Wilson, two-story residence, 30 by 45 feet; all modern improvements; cost \$4,500. For F. A. Warner, two-story residence; cost \$4,500. For R. B. Hacker, two-story residence; cost \$4,000. For Thomas Bates, alterations to residence; cost \$3,500. For Stewart Clark, alterations to residence; cost \$3,000. For W. A. Sickous, two-story residence; cost \$2,800.

**Helena, Mont.**—Power & Keefe are erecting a six-story brick block at a cost of \$120,000. Schaffer & Read have the contract.

T. C. Power is building a stone and granite residence at a cost of \$40,000. Schaffer & Read are the contractors.

W. H. Hunt has commenced the erection of a \$10,000 residence.

C. H. Hood is building a brick and stone block on Broadway, to cost \$15,000.

David Morris is building a block opposite Grand Central Hotel. It will cost \$17,000.

Mr. Paulsey will build a \$10,000 residence on Hauser avenue.

The Turn-Verein hall being erected on Helena avenue will cost \$9,000.

**Hot Springs, Ark.**—A \$20,000 church will be erected by the South Methodist Society from plans made by Architect Wilson, of Louisville, Ky. Joseph Longinatti will erect a \$40,000 business block.

**Jackson, Mich.**—Architects Johnson & Lovell have designs for a hotel building, to be erected at Hague's Landing; construction frame and brick; estimated cost \$20,000.

**Lansing, Mich.**—Architect F. W. Hollister, of Saginaw, has prepared plans for a reform school building for the state, to be erected here. It will be three stories high, built of brick with stone trimmings; have steam heat and modern conveniences; cost of structure about \$40,000.

**Macon, Ga.**—Architect D. B. Woodruff has prepared plans for the Macon Exchange Bank—a \$35,000 bank and office building.

**Omaha, Neb.**—H. J. Pruyn will erect a \$7,000 residence on Twenty-fourth and Spaulding streets, and C. R. Shaw will build seven cottages in Briggs Place near Harney and Dexter avenues, at a cost of \$18,000.

**Peoria, Ill.**—Architect J. F. Alexander has prepared plans for the following buildings: For J. W. Gift, three-story residence, brick and stone, slate roof, encaustic tiling, hardwood finish, stained glass, wood mantels, marble floors, annunciators, electric bells, dumb waiters, interior decorations, furnace heat, etc.; cost \$10,000. For J. W. Ballance, block of five-story stores, brick and stone, tin roof, architectural iron, iron doors and shutters, hardwood finish, steam passenger elevators, freight elevators, steam heat; cost \$25,000. For Woolner Bros., six-story office and store building, stone and brick, tin roofing, fireproofing, architectural ironwork, iron doors and shutters, vaults, marble wainscoting, encaustic tiling, window gratings; hydraulic elevators, passenger and freight; fire escapes, electric bells, steam heat, hardwood finish, etc.; cost \$100,000. For Young Men's Christian Association, five-story building, stone and brick; gravel roof, architectural iron, iron doors and shutters, marble floors, marble wainscoting, fireproofing, vaults, elevators, fire escapes, opera chairs, hardwood finish, stained glass, wood mantels, steam heat, etc.; cost \$75,000.

**Pittsburgh, Pa.**—There is much activity in building, but the majority of structures going up are small dwellings and tenements.

Architect G. S. Orth has made plans for a two-story brick and frame dwelling, 34 by 44 feet, for H. C. Ayers; cost \$8,500.

Architect J. S. George has made plans for a two-story and attic store and residence building, 20 by 30 feet, for J. F. Wunderlich; cost \$2,800.

Architect F. C. Sauer has made plans for a two-story dwelling, 30 by 40 feet, for W. G. Banckerbrick; slate roof; cost \$4,600.

Architect L. T. McClarren has made plans for a two-story and attic dwelling, for W. R. Armstrong; cost \$3,500.

Architect W. Hodgdon has made plans for six two-story dwellings, for J. P. Fleming; brick, gravel roof; cost \$3,300 each.

Architects Obitz & Wahle are making plans for a double dwelling and store for Theo. Weiss.

Architect J. W. Burr is making plans for two six-room dwellings for Morris & Fleming; two residences for the Pittsburgh Iron Paint Co.; an eight-room residence for J. Garrison, and a brick block to be erected at Johnstown by J. P. Linton.

**St. Joseph, Mo.**—Architects Eckel & Mann have made plans for new bank, store and office building, to be erected by the German American Bank. It will be five stories; estimated cost \$75,000.



## Trap Siphonage.

On Friday afternoon, August 30, some fifty odd gentlemen, representing the architectural profession, the plumbing fraternity, and experts in sanitation, among the latter, Dr. Wayne Wickersham, commissioner of health, assembled, upon invitation of Dr. E. S. McClellan, at the Institute of Building Arts, to witness a series of tests in trap siphonage, and an exhibition of the working of the McClellan anti-siphon trap, conducted by the inventor himself, Dr. McClellan. Prior to the exhibition, the guests participated in an excellent collation, a part of which was a test surprise of the experimental and practical knowledge each participant had of the subject to come under discussion, "trap siphonage." In the hands of each, as an afterpart of the *menu*, the doctor had placed a small silver trap of the conventional form with its seal well set. In every instance this test of knowledge was a success, and although repeatedly made, the siphonage invariably occurred at the critical period, breaking, in every instance, the seal, leaving only a faint odor of Medford and lemons behind.

Immediately after the cigars, Dr. McClellan placed himself before a combination of piping, to which was connected a series of class traps and vents, and in companionship with them his own anti-siphon trap, a popular description of which has already appeared in THE INLAND ARCHITECT, and a good idea of which may be had by referring to the cut in his advertisement. That the experiments might be closely observed in their practical workings, the doctor had the several traps in the apparatus made of glass tubing, through which the situation of the seals could at all times be seen. His introductory was a brief dissertation on the philosophy of siphonage, and why class traps were subject to it, i.e., the flushing of the pipes conveying the waste water created that thing which nature is alleged to abhor—a vacuum—and the water in the trap being unable to resist the imperative call of nature for filling left the trap to get along without its services.

The first experiment was against a trap of ordinary form, 30 inches deep, made of glass. It was by a momentary discharge of water through a 3-inch waste pipe, with a fall of four feet. The result was a complete exhaustion of the trap, not more than a tablespoonful of water being left in the seal. The next experiment was made by the same fall of water through the same pipe with a 3-inch glass S trap, to which was connected one of the doctor's anti-siphon vents. The result was an unbroken seal, caused by this simple device, substituting air in lieu of the water in the trap, and thereby doing another good thing, while keeping the seal of the trap intact, i.e., introducing fresh air from the room into the piping, thus aiding to correct the fetid air within.

Subsequently the entire contents of the water tank was discharged through the piping without disturbing the seal. Quite a number of other interesting experiments were given with this anti-siphon trap vent, with equally successful results. All of the exhibitions of this peculiar fixture were made under much more severe tests than ever occur in ordinary practice. During the exhibition quite a number of questions were asked and possible objections raised which were clearly met by the doctor and to the apparent satisfaction of the questioners. Judging from expressions made during the experiments, and after, by the number who remained to examine the simple apparatus, it may be safely said that the doctor has succeeded in at least interesting those who availed themselves of his hospitality on the day and occasion above named.

Mr. GEORGE WESTINGHOUSE is having his summer residence at Lennox, Massachusetts, plastered with King's Windsor Cement. Mr. H. Dodge, of Pittsfield, the contractor, reports that he never saw finer plastering.

## Fireproofing Wood.

Another instance of the fireproof qualities of wood that had been treated with Creosote Stain occurred recently. A barn in Youngstown, Ohio, had been partly painted and partly stained with Creosote Stain. Shortly afterward a mill within a few feet of the barn burned to the ground. Where the barn was not covered at all it was scorched, and in some places burned through. Where paint had been used it was found peeled off, and the wood scorched beneath. The part covered with Creosote Stain was found entirely unburned, and the color as bright as ever. It would be interesting to hear from anyone who has had a similar experience with Creosote Stain or any other preparation.

## The Henderson Heating Systems.

We present here the heating systems made by Messrs. J. C. Henderson & Co., of Troy, N. Y. The first, Fig. 1, for the use of hot air, made to be set either portable or in brick walls, shows the portable furnace incased. This furnace is what is known as the "Tubular Dome Furnace," is made in four forms, has large, strong, and durable fire pots. The domes and radiators are each cast in one piece without joints. The grates are large and easily cleaned. The ash-pits are deep, giving a large free space for ashes. The doors in the fronts are large. The grate shaft has a follower, so that when the grate is shaken the ashes will not flow out into the room.

The cast-iron radiator, which is connected with the dome by a collar, compels the smoke and burning gases to travel around its entire circumference before it reaches the smoke-pipe or chimney, and thus adds a large amount of extra heating surface. It also has wrought boiler tubes, which are made steam-tight and run through the dome from points on the

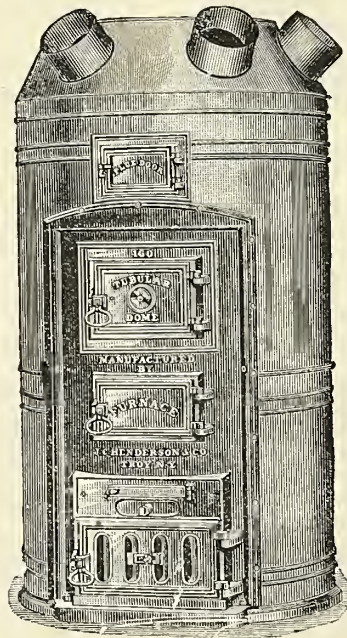


FIG. 1.

lower part to the top, which also adds very much more heating surface.

There are cases where hot-air furnaces cannot fill the bill, as in conditions in which heat cannot be properly distributed from a furnace. The Hendersons have therefore adopted a combined system of hot water and steam with the furnace, and have perfected a furnace with a water heating and circulating attachment adapted to heat conservatories. The attachment is added to the same furnace that heats the house with warm air, and is capable of heating in this manner rooms of almost any size desired by carrying water to such rooms in a radiator and open tank, that will not only heat the conservatory but produce

by evaporation a soft and humid atmosphere which is most conducive to plant growth.

This improvement can be used also in combination with the hot-air system of heating, by conducting a steam or hot-water circulation to any room or rooms desired to be heated by radiation in this manner. This method is especially adapted to supply hot air and hot water to Turkish baths.

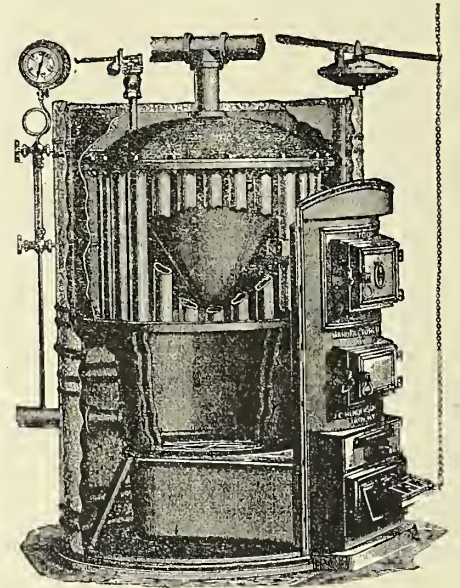


FIG. 3.

Fig. 3 represents Henderson's steam or hot water boiler for warming all kinds of buildings or conservatories in the manner above referred to, and will be found both effective and economical. It is made portable and brick set and in sizes ranging in capacity from 20,000 to 100,000 cubic feet of air space. Mr. Henderson has given much study to the subjects of ventilation and the methods of heating by warm-air circulation, hot water or steam, and in consequence the results of his experience, as set forth in his circulars and catalogues, will be found valuable and interesting to architects and builders. His methods of securing constant circulation of air, location of ventilators, etc., for private houses, public halls and other places are worthy of careful attention, and the system of heating adopted by him, embracing hot-air furnaces and boilers for circulating steam or hot water, are well adapted to secure good results both in ventilating and heating.

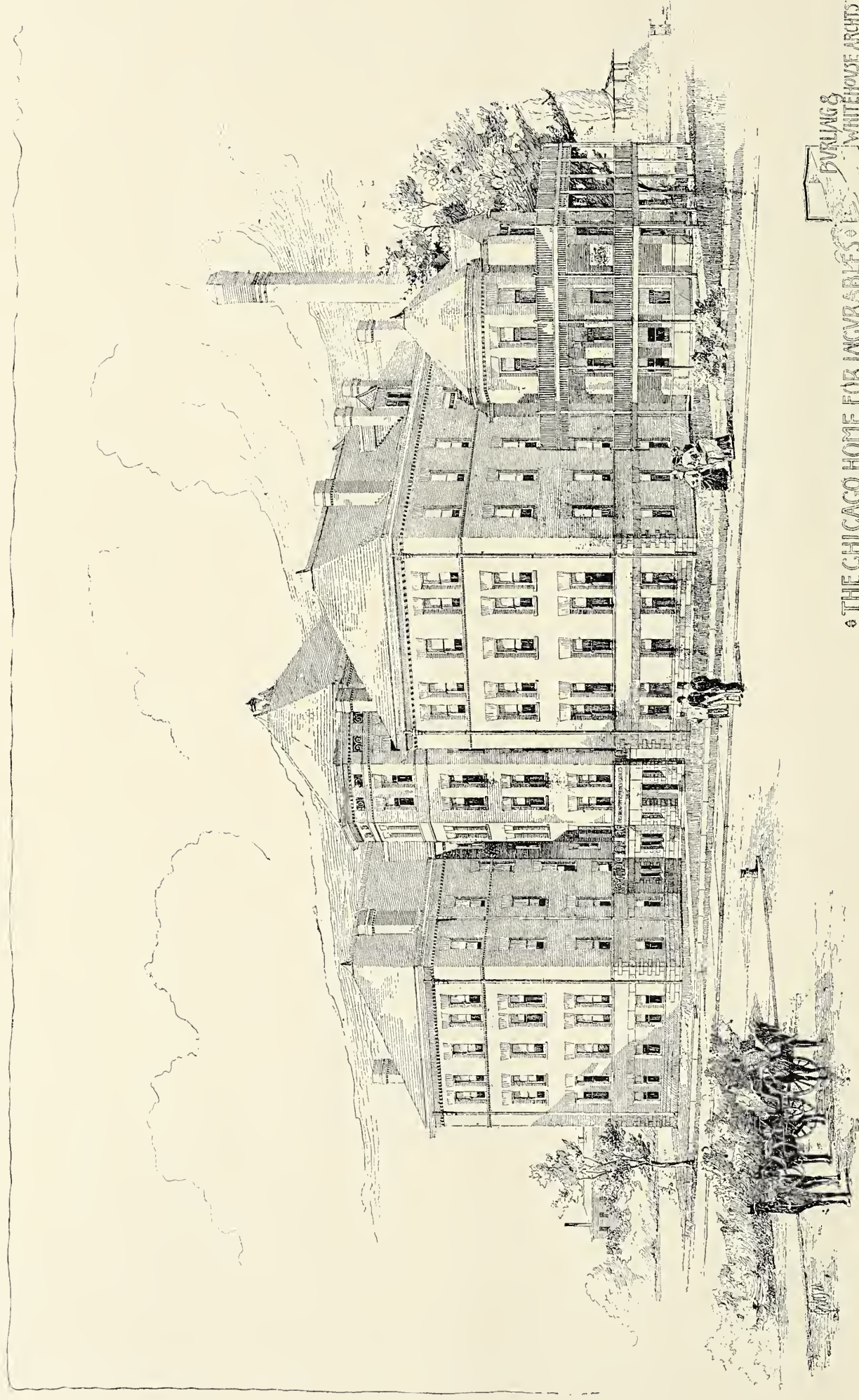
## Wire Lathing Test.

On July 25, the New Jersey Wire Cloth Company made an unusually severe test at Germantown Junction, which practically proved the perfect fireproof qualities of their patent Stiffened Wire Lathing, and demonstrated to the architects, builders and insurance men present, that if proper materials were used the immense yearly fire loss could be reduced to a minimum. While the cost of such materials may be somewhat more at first, the decrease in the rate of insurance on all buildings considered fireproof more than compensates, in the long run, for the original increase in cost. As another evidence that this subject will not down, we chronicle the fact that the committee having in charge the erection of the new building for the Convent of the Sacred Heart, at Manhattanville, New York, whose former building was destroyed by fire, not long since, has concluded to run little or no risk of a like calamity in the future, and to this end determined to use, as far as possible, every known fireproof material in the construction of the new building. When it came to the matter of lathing, the committee promptly sent an order to the New Jersey Wire Cloth Company for corrugated lathing, which order has just been filled by the firm, to the great satisfaction of all concerned.







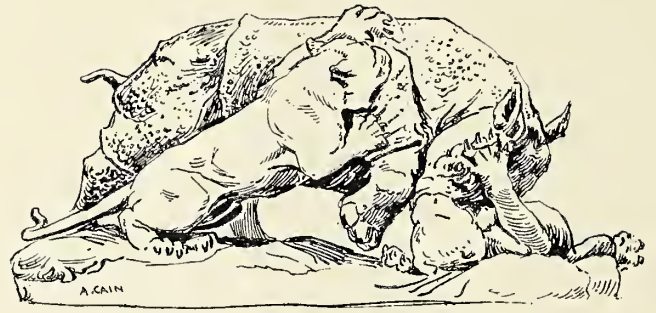


THE CHICAGO HOME FOR INCURABLES.  
DUNLAP & WHITEHOUSE ARCHTS.





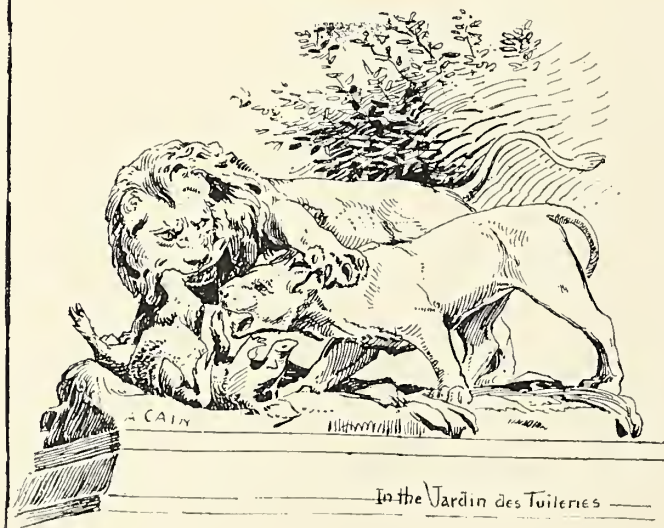




In the JARDIN des TUILERIES



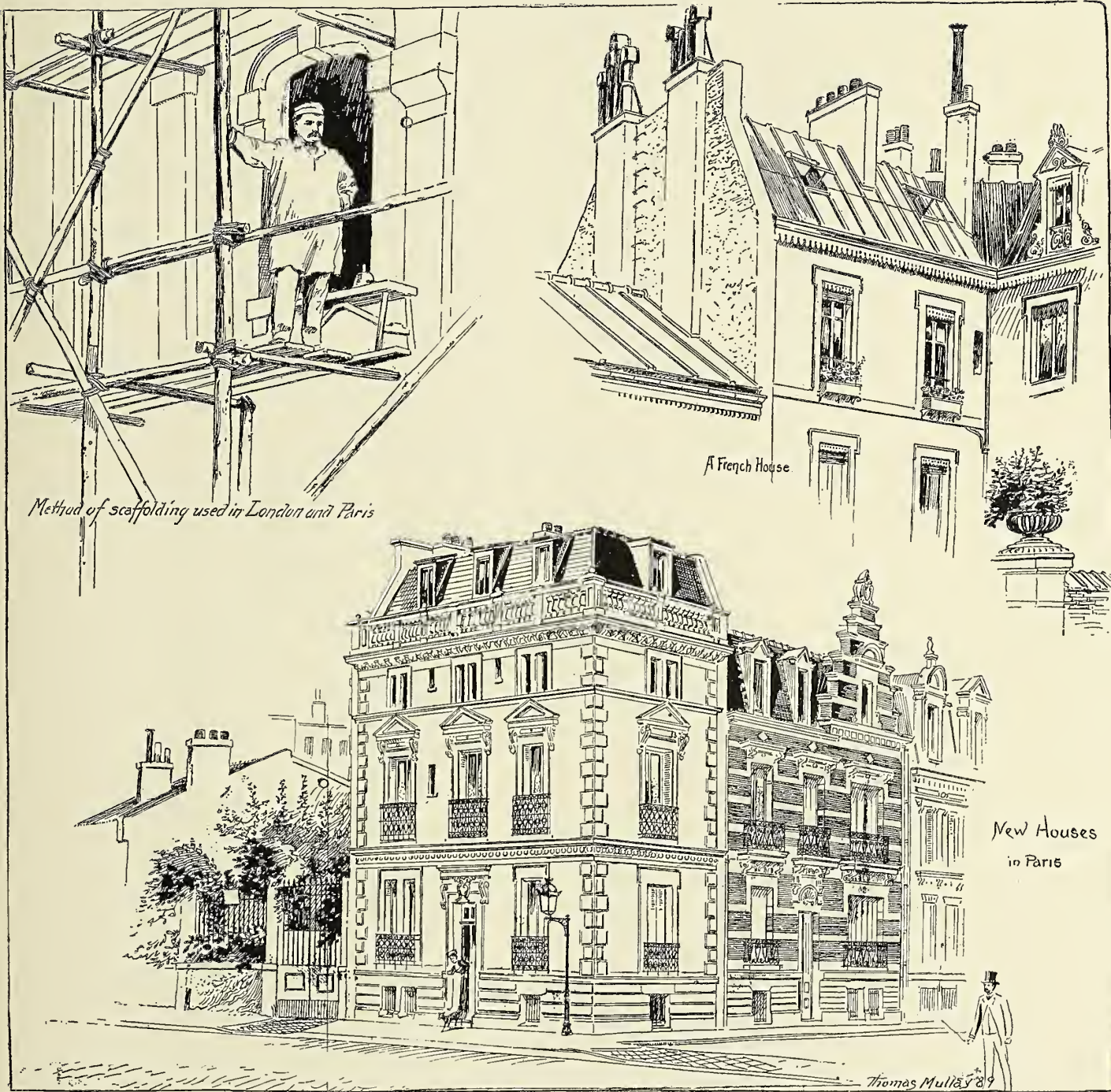
At Longchamps.



In the JARDIN des TUILERIES







Method of scaffolding used in London and Paris

A French House

New Houses  
in Paris

Thomas Muller 89

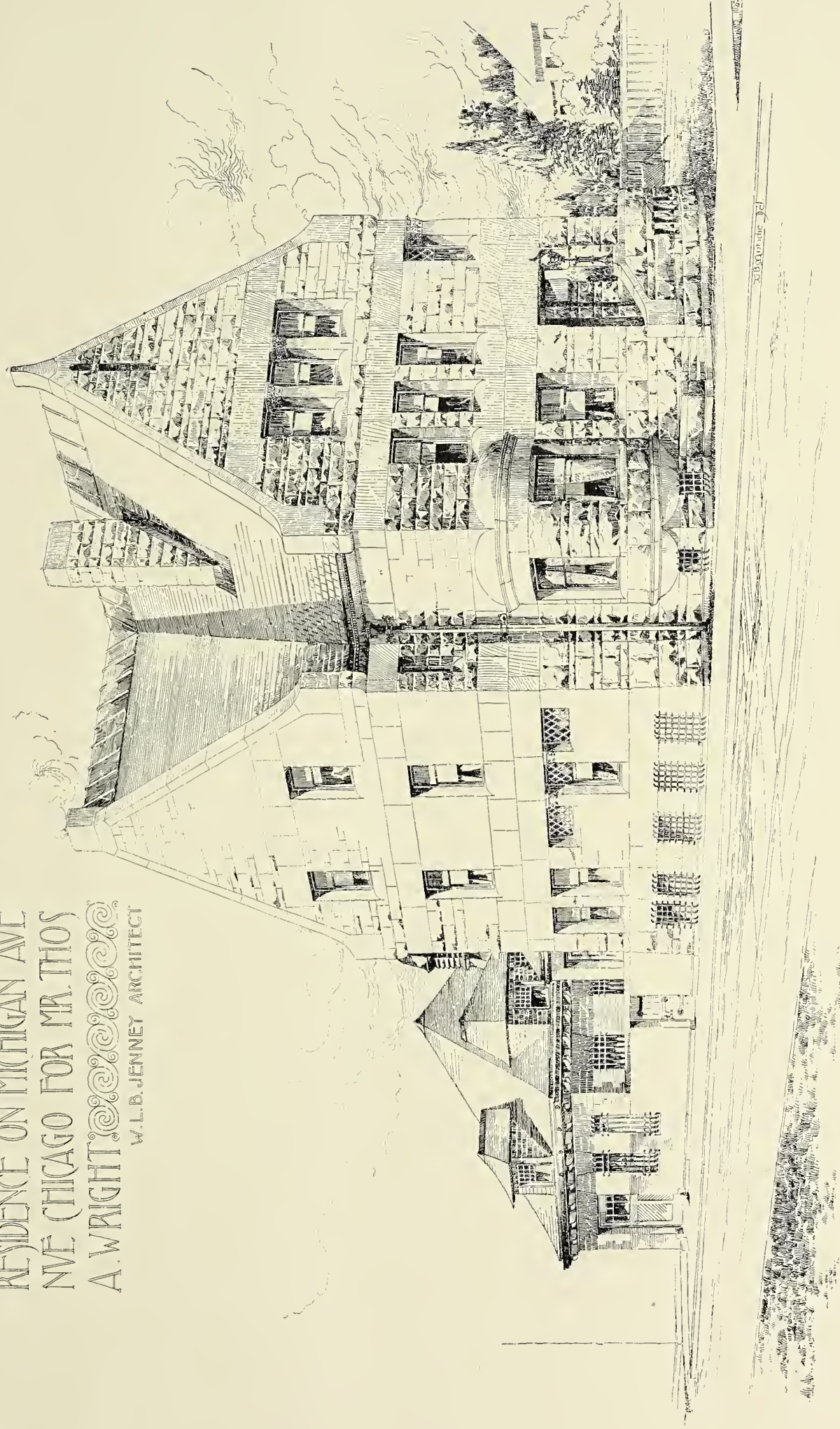






RESIDENCE ON MICHIGAN AVE  
NWE CHICAGO FOR MR. THOS  
A. WRIGHT

W.L.B. JENNEY ARCHITECT



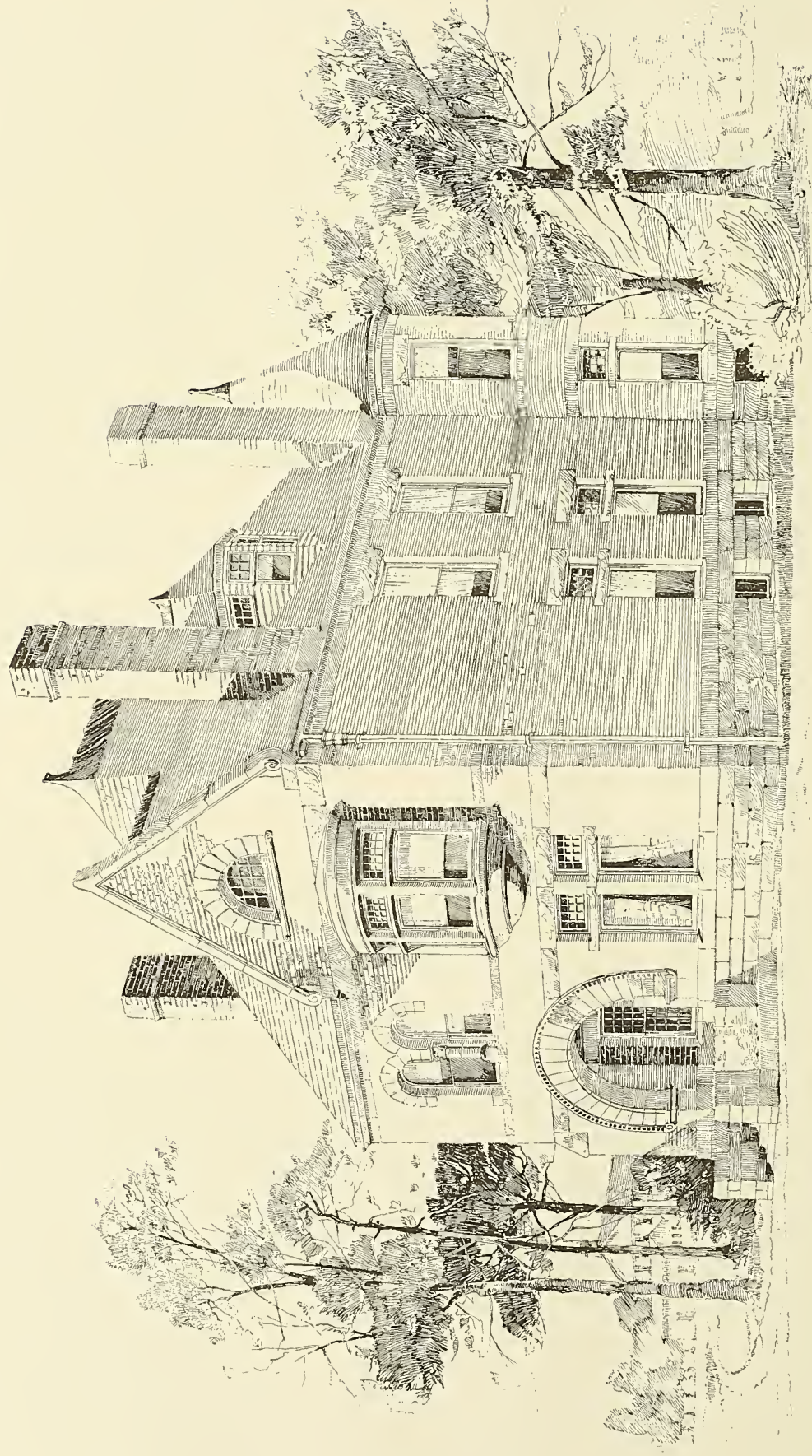












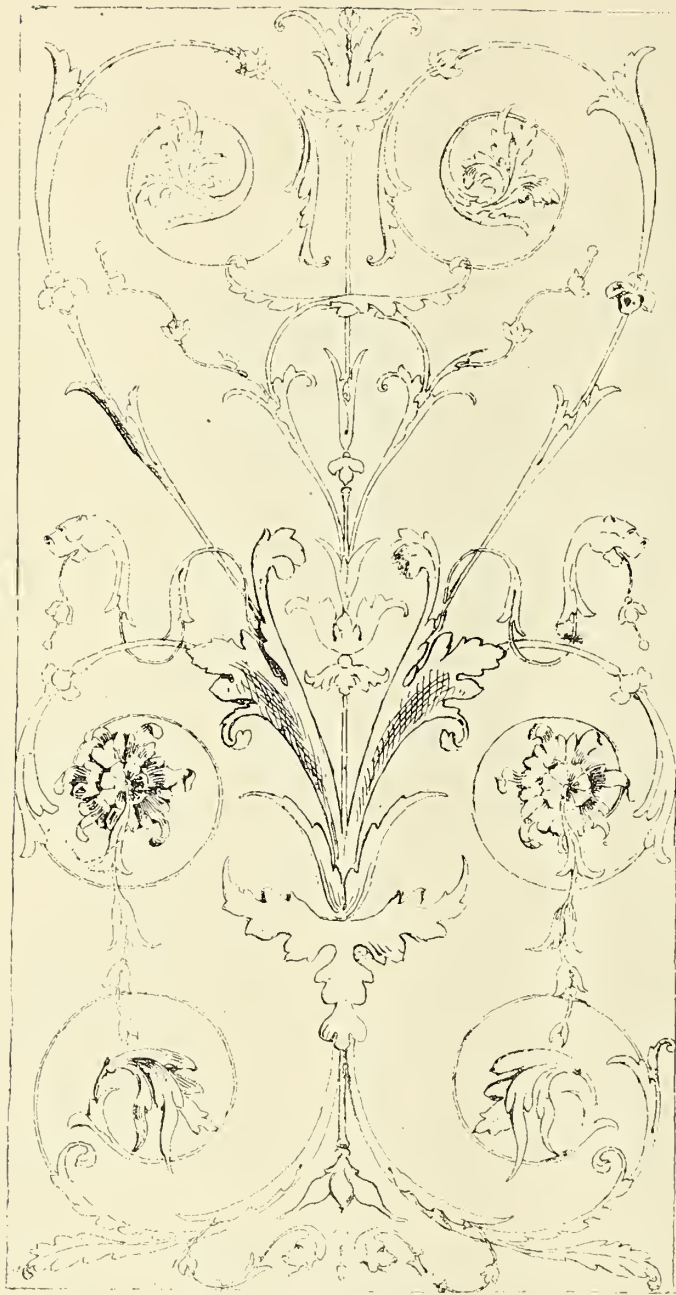
◦ RESIDENCE FOR MR. AVS. LINDSLEY ◦ NASHVILLE TENN.

Chas. K. Ramsey, Architect J. I. Lays M<sup>o</sup>









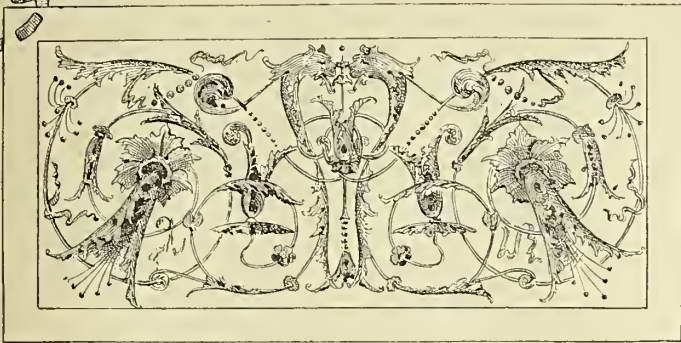
FIRST PLACE.—A. STEDMAN.



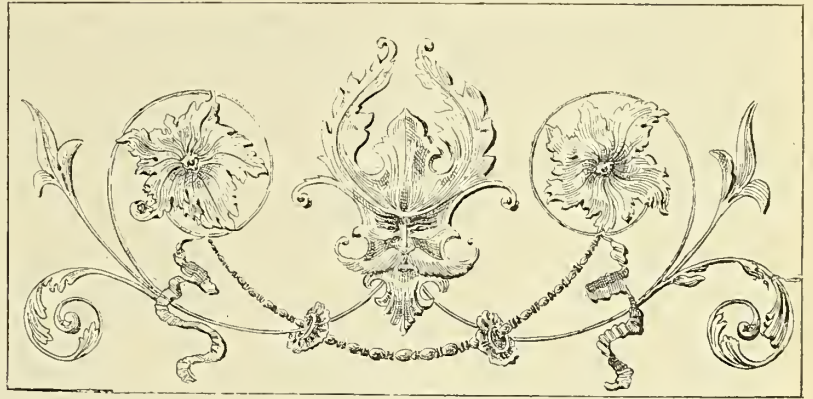
SECOND PLACE.—L. G. DITTOE.

CINCINNATI ARCHITECTURAL CLUB,  
COMPETITION FOR A FRENCH RENAISSANCE PANEL.



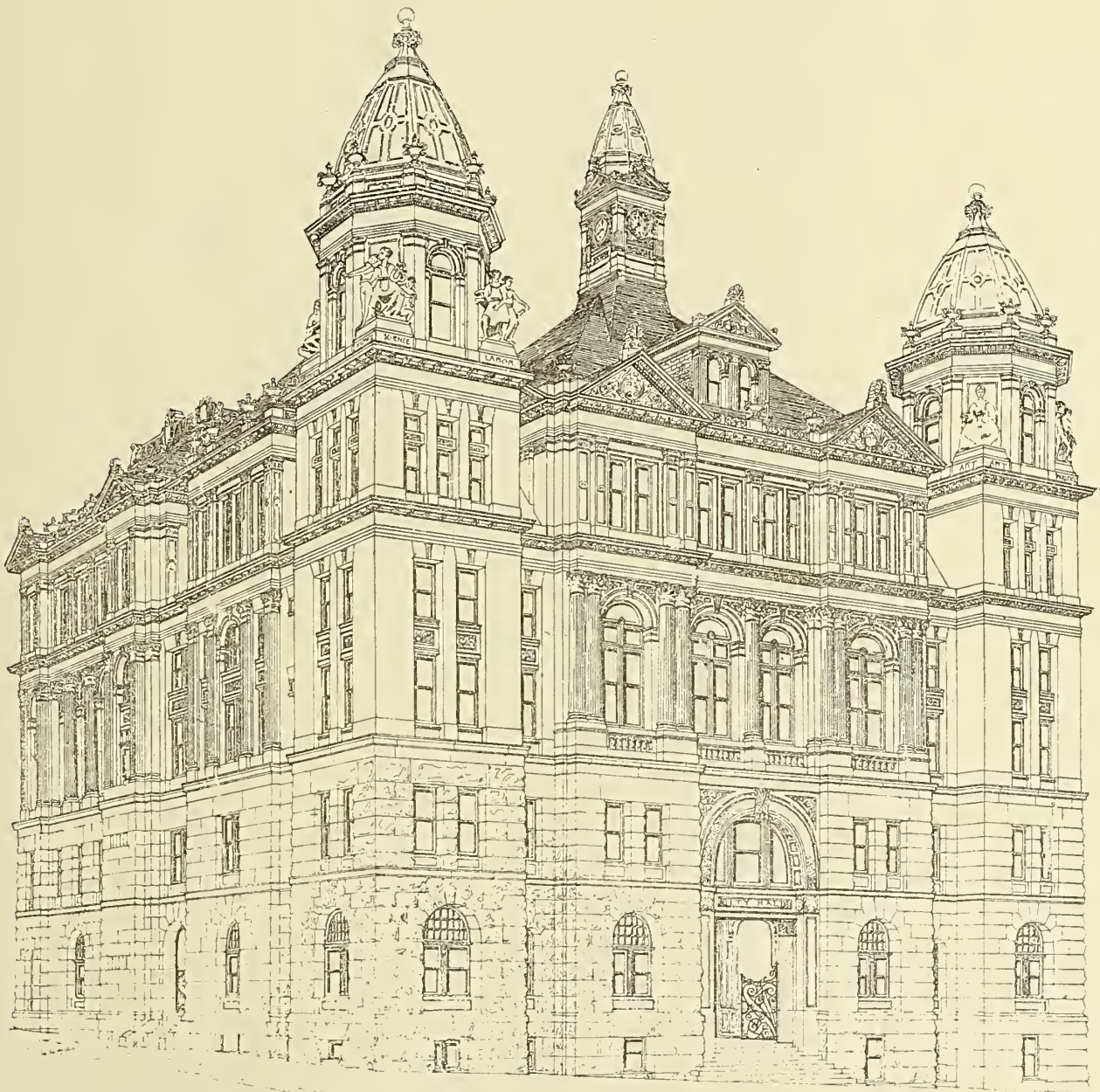


THIRD PLACE.—G. W. E. FIELD.



SUBMITTED BY JOHN ZETTEL.

No 1



COMPETITIVE DESIGN FOR CITY HALL FOR OMAHA, NEB.

SIDNEY SMITH, ARCHITECT.

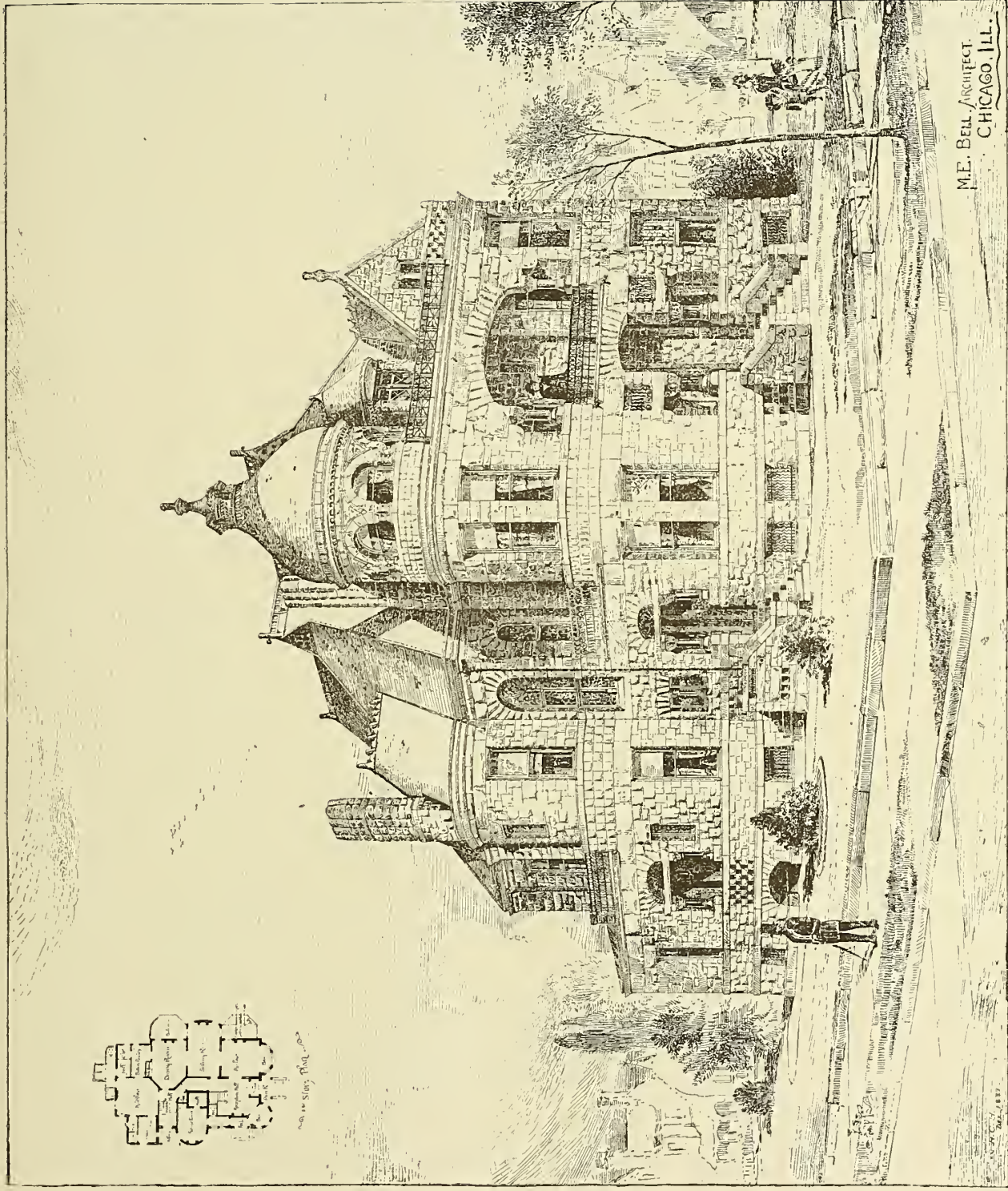








W. H. S. 1887



M. E. BELL, ARCHT.  
CHICAGO, ILL.

RESIDENCE FOR MRS. MARY WILKINS  
WRIGHTWOOD AVE & STONEY COUNTRY, ILL.









Entered at the Postoffice at Chicago as second-class matter.

A MONTHLY JOURNAL (WITH AN INTERMEDIATE NEWS NUMBER AND A PHOTO-GRAVURE EDITION) DEVOTED TO WESTERN INTERESTS.

VOL. XIV. No. 3.

CHICAGO, SEPTEMBER, 1889.

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## INTERMEDIATE NEWS NUMBER,

DEVOTED TO

ASSOCIATION AND BUILDING NEWS.

PUBLISHED BY

THE INLAND PUBLISHING COMPANY,

CHICAGO, ILL.

**Meetings of the Executive Boards.** Since the issue of our last number there have been two important meetings on association affairs. On September 17 the Board of Directors of the Western Association met at Chicago, and examined applications for membership and recommended quite a number of names which now will be voted upon by letter ballot as provided by the constitution. On the 19th the Western Association board met the trustees of the American Institute in New York. Cincinnati was formally settled upon by a large majority as the place for the joint convention. In our last number we suggested that the convention and the National Exhibition of Architectural Drawings be held at the same time. This will be done, as Wednesday, November 20, has been selected as the opening day for the convention, preceded by an informal reception at the rooms of the Cincinnati Architectural Club, Tuesday evening. A. J. Bloor and E. H. Kendall, of the Institute board, and Charles Crapsey and N. S. Patton, of the Western Association, were named as a committee of arrangements for the convention.

**The National Exhibition of Architectural Drawings.** The setting by the executive boards of the American Institute and the Western Association of Architects of the date for the joint convention during the time of the National Exhibition of Drawings should spur the Cincinnati Architectural Club and the draftsmen of the entire country to their utmost to make a memorable display. All the club organizations in particular should have a large representation of their most creditable work, both on their own account and in compliment to, and in aid of one of their number. The clubs have many good drawings which have been presented as initiation sketches and in competitions, and with very little trouble these can be got together and sent to Cincinnati. This will be a great help to the exhibit, and a comparison can be made of the character of work being done by the various clubs. The good points of each

will be noted, and much benefit result to all who can attend. The convention will draw together most of the prominent architects of the country, and not soon again will draftsmen have their work viewed by so many leading men of the profession. We believe this fact is appreciated, judging by expressions we have heard from some of the best known draftsmen; and with the pride all draftsmen should feel in making this exhibition representative in a large degree of their best work, and with the prizes offered, we expect the display will be all that is hoped for by its ambitious promoters.

### The Pardon of Buddensiek, the Skin Builder.

It is stated that the friends of Charles A. Buddensiek, the notorious skin builder of New York City, are circulating petitions to the governor of that state for his pardon, after serving in the penitentiary only four years of the ten to which he was sentenced. Readers who were familiar with the facts will recollect that this Buddensiek had been for a number of years prior to 1884 a notorious contractor in New York and Brooklyn, who had acquired such wealth and influence by his peculiar methods of conducting the building business that he successfully defied all attempts of the municipal authorities to compel any regard to the principles of substantial construction. At last he ventured so far as to erect in the winter season a block of five or six story buildings in which cellar mud was substituted for mortar. Freezing as soon as it was laid, this held the bricks together until the roofs were on; then a warm spell came, the mud thawed and the whole block collapsed in a frightful ruin. Among other testimony at the inquest, it was stated that only a single load of sand was ever brought to the buildings, and this remained in the street unused except to deceive the city inspectors. When the attempt was made to arrest Buddensiek and bring him to trial, so great was the power of his money and the cunning of the lawyers who abetted him in his rascality, that it was only by the greatest effort that it was possible to secure his conviction and sentence. His cool insolence and his impudent defiance of both law and decency marked him as one of the most dangerous of offenders. His punishment was a hardly won victory for the right; it is very doubtful if any good would result to the community he so long defied by turning him loose again before he has served out half his sentence. Sing Sing is a safer place for such contractors than the streets of New York City.



### Association of Ohio Architects.

THE fourth annual meeting of the Association of Ohio Architects was called to order at the Phillips House, Dayton, Ohio, August 15, at 10:15 A.M., President C. I. Williams in the chair.

The roll was called by the secretary, and the following members responded to their names: Guy Tilden, William Martin Aiken, William R. Brown, Charles Crapsey, Gustave Drach, Walter R. Forbush, J. W. McLaughlin, George W. Rapp, H. E. Siter, A. O. Elzner, John H. Boll, George H. Smith, C. A. Stribling, J. W. Yost, S. R. Burns, F. J. Otter, Luther Peters, C. I. Williams, R. E. Dexter, M. Reutti, E. O. Fallis, H. C. Lindsay and R. C. McLean.

President C. I. Williams addressed the assembly as follows:

FELLOW ARCHITECTS,—We meet once more after twelve months of separation. A year of hustling business, mixed plentifully with hustling for business, has passed since we met and parted in that most beautiful of cities on Erie shores. Parted to meet a year hence, and with hearts and heads full of regrets at parting and of resolutions for the future—good resolutions to accomplish something glorious during the year for bettering the condition of architectural practice in America generally, and in Ohio particularly. Your then newly elected president was particularly full of these good resolutions and other good things—too full for utterance—and expected to devote a large part of the coming year in packing primaries, working conventions and influencing legislators in behalf of the much abused and neglected architect.

Among the many good things resolved upon was the forming of chapters throughout the state in those cities which, as yet, were not supplied in that line, and especially in our own Gem City. This would have been a good thing to do, but Dayton architects have yet to realize the rights and benefits of a chapter.

Another good resolution which, in the mind of your president, was almost as good as accomplished, was the forming of a Dayton sketch club, with the accompanying prize competitions, tours of inspection, problems in construction and the like, but as yet our draftsmen are comparative strangers; interchange of ideas and friendly trials for supremacy are to them unknown.

More than this, we were confident that before the present meeting should be called to order the laws of Ohio would require that the shingle of an architect should at least be "clear butt," but they don't. So far as the laws are concerned anything will do, even cross cut knot holes, laid a foot to the weather.

Yes, fellow architects, our intentions were superb, but we blush to articulate, so far as comes to the knowledge of your president, absolutely nothing has been accomplished. A hand has not been turned nor a step taken. Our administration has been brilliant in its repose. Those good resolutions, alas, those noble resolutions, have vanished! Resolved into a very fine quality of paving blocks, which have been carefully laid according to specifications, with the chunks filled with molten brimstone.

Yes, a whole year has passed, irretrievably gone with the good resolutions, and we welcome you to our Gem City to resolve again. To our Gem City, where clients are thick as flies in an amateur baseball match, and about as easy to catch, where they never want more than a \$16,000 house for \$5,000, and always insist on paying five per cent.

A glance about you at the satisfied expression on the countenances of the as yet unformed Dayton Chapter, will readily convince you that our city is a gem in all that the word implies to an architect.

If our chapter was in working order I feel sure they would vote you the freedom of the city. Under the circumstances, fellow architects, we bid you welcome, and proceed with the regular order of business.

The minutes of the last annual meeting were read by the secretary.

On motion, the reading of the report of the Committee on Statutory Revision and Law for Licensing Architects was dispensed with.

The President: We will hear the report of the Executive Committee. Mr. Schweinfurth, the chairman of the committee being absent, Mr. Crapsey will report.

Mr. Crapsey: The Executive Committee desire to offer Frank L. Sutter as a member of this association. The firm name is Frank L. Sutter. Business address is Room 19, Barney Building, Dayton, Ohio. Recommended by Frank J. Otter and C. I. Williams. We recommend him for election.

A ballot being taken, the president announced result of the ballot fourteen yeas, making Mr. Sutter a member of the association.

The President: I will announce to the meeting that I have received a paper from Mr. Edwin Anderson, architect of Cincinnati, with a letter stating that the paper was to be read before the convention, and regretting his inability to be present.

Motion made and seconded that the president read the paper.

The President: Mr. Anderson's letter is on the "Insanity of Architects," and is as follows:

Mr. Levi T. Schofield, architect, Cleveland, Ohio, under date of May 21, 1886, writes as follows: "Did it ever occur to you that a great many architects die crazy? In my time only one architect in Cleveland has died otherwise than crazy. Old Colonel Porter died crazy. Mr. Heard was insane several years before he died. H. E. Myer died in the Newburgh Asylum. His partner, Holmes, died in a Michigan asylum. Wiele moved to Kansas City, became crazy and drowned himself in the river. Charlott died in his office either drunk or crazy. Blythe died with softening of the brain (?), and as near as I can make out, all of the rest are in the same boat.

"I do not wish to discourage you or anyone in our business, but isn't the above record rather mournful to contemplate?"

To the above testimony I beg leave to add the record of six Cincinnati architects, omitting names: two from softening of the brain, three from disease induced from alcoholism, one suicide. Respectfully, E. ANDERSON.

On motion, it was decided to agitate the building of an asylum for architects.

Mr. R. C. McLean gave a very interesting account of the origin of the above paper.

The President: I have a letter from Mr. N. B. Bacon, of Toledo, Ohio, in which he states he very much regrets his inability to be present at the meeting. I have also a letter from Mrs. Emma Kanengeiser, in which she informs us of the death of her husband, Mr. A. Kanengeiser, who was a member of this association.

Mr. Crapsey: I think some action should be taken in regard to that letter, and I therefore move that our secretary be instructed to make a proper reply.

The motion was seconded and carried.

The President: The secretary will take notice and act accordingly. I have received a communication from Mr. James H. Windrim, supervising architect of the United States, in which he regrets very much his inability to be present. I sent Mr. Windrim an invitation to our meeting here, and signified our intention of making him an honorary member of the association.

Mr. Yost: I move that Mr. Windrim be elected an honorary member of this association, and that knowledge of that fact be sent to him by the secretary. It was so ordered.

The President: Mr. Yost has kindly prepared a paper for our entertainment and instruction. We will be very glad to listen to the same.

Mr. Yost read a paper on "How Shall We Build?"

Mr. Aiken gave a very interesting description of his trip abroad, and Mr. Rapp also made interesting remarks about a similar trip.

On motion a committee of three was appointed to nominate officers for the ensuing year, and to suggest a place for holding the next annual meeting.

Walter R. Forbush, Luther Peters and William Martin Aiken were appointed as such committee to present two tickets, and suggest two places for holding the next meeting.

Mr. Fallis offered the following resolution:

*Resolved*, That the Association of Ohio Architects in convention assembled hereby extend to the Board of Trustees of the American Institute of Architects and to the Board of Directors of the Western Association of Architects a cordial invitation to hold the first convention of the Consolidated Institute at Cincinnati, Ohio.

*Resolved*, That should the invitation be accepted we pledge ourselves to make the convention as pleasant and profitable as possible.

The resolution was unanimously adopted.

Mr. Rapp offered the following resolution:

*Resolved*, That the president of this association appoint a committee of seven, whose duty it shall be to make all necessary and proper arrangements for the entertainment of the first convention of the Consolidated American Institute of Architects, provided that said convention is held in the State of Ohio, otherwise this action to be null and void.

The resolution was adopted and the president appointed G. W. Rapp, Charles Crapsey, J. W. McLaughlin, H. E. Siter, J. W. Yost, H. C. Lindsay and Walter R. Forbush as Committee on Entertainment of the Consolidated American Institute of Architects.

Mr. Crapsey: It has been decided by vote to consolidate the American Institute of Architects and the Western Association of Architects. I think it would be proper for this Association to pass some resolution pledging our support to the new institute, and in view of that I would offer the following:

*Resolved*, By the Association of Ohio Architects in convention assembled, that we extend to the consolidated American Institute of Architects our greetings. And we pledge to the new Institute our unbounded support, and that we will do all in our power to make the said Institute a decided success.

The resolution was adopted unanimously.

The President: The report of the Committee on Nominations is next in order.

Mr. Forbush: The Committee on Nominations report the nomination of two tickets, and the suggestion of two places of meeting next year. One ticket suggests the place of meeting at Toledo, with Mr. E. O. Fallis, as president; vice-presidents, S. R. Burns, H. E. Siter, F. O. Weary, C. O. Arey and H. A. Linthwaite; for secretary, N. B. Bacon; for treasurer, J. W. Yost; executive committee, E. O. Fallis, C. I. Williams, J. W. McLaughlin, F. A. Coburn and M. Reutti.

The other ticket suggests the place of meeting at Columbus, Ohio, with H. A. Linthwaite, president; and for vice-presidents, S. R. Burns, H. E. Siter, F. O. Weary, C. O. Arey and Guy Tilden; for secretary, C. A. Stribling; for treasurer, Charles Crapsey; executive committee, E. O. Fallis, J. W. Yost, J. W. McLaughlin, F. A. Coburn and M. Reutti.

The President: The result of the ballot for place is eighteen votes; seventeen for Toledo and one for Columbus.

The ticket headed by Mr. E. O. Fallis, with Toledo as the place of meeting, was elected unanimously.

The President: We will hear the report of the Committee on Legislation.

Mr. Yost: I have no report to make, and yet I can report some progress. During the last year there has been a law passed by the legislature, which is now in operation under the title of "An Act to Prevent the Erection of Dangerous Buildings for Public Use," which is as follows:

SECTION 1. Be it enacted by the General Assembly of the State of Ohio, that it shall be unlawful for any person, society, firm, agent, representative of any private or corporate authority or society, or any committee, commission, or board acting under any authority whatsoever, to erect or cause to be erected, or for any architect, engineer, builder or other person to furnish any plan, description or specification for the purpose of erecting in the State of Ohio, any structure, room or place where persons are invited, expected or permitted to assemble, or for the purpose of entertainment, judgment, amusement, instruction, betterment, treatment or care, or to make any addition to or alteration therein which shall in construction, arrangement or means of egress be dangerous to the health or lives of persons so assembled.

SEC. 2. In every such structure, room or place capable of containing fifty or more persons, the stairways and approaches thereto, and all doorways and escapes therefrom, in their aggregate width shall be of sufficient capacity to allow any audience which can be accommodated therein to escape therefrom in four (4) minutes, moving at a rate of two (2) feet per second and allowing four (4) square feet of floor space to each person; then adding for hindrance 2 feet to the width of each opening, passage or stairway. The doors from the same shall open outward, but no such room or place (unless the structure be fireproof) which is over six feet from the surface of the lot shall have less than two doors, stairways or exits.

The floors of such structures, and of all hallways, stairways, corridors, balconies and galleries therein or thereto shall be capable of sustaining a live load of 100 pounds per square foot with a safety factor of five.

All supports for floors or other parts of such structures shall be fully capable of sustaining the aggregate loads and pressures above provided for in addition to any rhythmical or vibrating motion which may be caused in the use of such structure.

The roof or covering of such building shall be capable of sustaining a live load of thirty pounds of vertical pressure and a horizontal wind pressure of forty pounds per square foot, with safety factor of five.

When walls supporting floors are of common brickwork, the minimum of thickness and the maximum of height, supposing the length to equal the height, shall be—where no openings occur—9-inch wall, 10 feet, used inside only; 13-inch wall, 20 feet; 17-inch wall, 30 feet; 21-inch wall, 40 feet; 26-inch wall, 50 feet; 30-inch wall, 60 feet; but when thinner walls stand upon thicker walls the total height shall not exceed the one above given.

Walls of hard brick laid in cement may be increased fifty per cent above these dimensions.

When walls between supports are of greater or less length than the height, the length may be increased 2 feet for each foot the height is reduced, or reduced ½ foot for each foot the height is increased from the dimensions given in this section.



When there are buttresses or pilasters extending to the foundations and projecting from the wall, the thickness of the wall may be reduced by one-half the depth of such projections, provided they occupy at least one-tenth of the surface of the wall, and the thickness of the intervening walls, considered separately, shall not be less than what has been given in this section.

Provided, however, that when any wall is strengthened by firm anchoring of girders, floors or roofs, such anchors not being more than twelve times the thickness of the wall from each other, either horizontally or vertically, the surface of such wall may be doubled.

The thickness of level-bedded stone walls to be the same as brick. For rough stone, not in courses, add twenty-five per cent to the thickness for brick. Where openings occur thicken the walls by their ratio of surface.

All piers, pillars and columns shall be capable of sustaining the aggregated live load given and the weight of the building.

All arches must contain the line of pressure within the middle one third of the voussoirs.

The greatest pressure allowed per square foot of good brickwork shall be five tons; for work of hard brick laid in Portland cement ten tons; for unbedded sandstone masonry four tons; for second-class masonry eight tons; for first-class masonry twelve tons.

Piers, columns, pillars and all marble, granite and limestone work not over twenty per cent of the crushing weight.

Every such building, place or room when above the second floor shall be provided with at least one fire-escape, which shall be so placed as to be easily accessible, so marked that it may be generally understood, so constructed as to lead directly to the open air, and so designed as not to be dangerous for women and children, and shall be sufficiently inclosed to protect persons thereon from fire below, i. e., it shall be placed against a dead wall and be inclosed on three sides, and in buildings where two or more assemblages occur, as in schoolhouses, each room above the second floor must have an exit leading to a fire-escape. No fire-escape shall be less than twenty-four inches in clear width, with an additional fourteen inches in width for each person (over fifty) to be accommodated thereby.

The ventilating system or machinery shall be capable of changing the air in such room every thirty minutes; and all lavatories and water-closet places shall have double the above given capacity for ventilation; and all conveniences used in such buildings shall have soil and waste pipes fully ventilated to the outside air.

The warming and lighting apparatus shall be arranged and constructed so as to be safe against explosion or fire. All smoke flues or pipes, unless lined with terra-cotta or other fireproof material of permanent character, shall not be nearer than eight inches to any combustible material, and not nearer than four inches in any case, nor shall any smoke flue, pipe or chamber of metal being or passing under woodwork, be nearer thereto than twice the diameter of such pipe, flue, or chamber, unless protected with suitable fireproof guard with open space above.

Every warm-air flue of metal shall be at least twelve inches from all wood-work, and also be completely covered with asbestos or other fireproof wrapping, with a circulation of air between it and the wood, and no wood shall be nearer than four inches to any such flue in brickwork.

Sec. 3. This act shall not apply to cities of the first class, where the construction of buildings is regulated by statute under the direction of a building inspector; nor shall it be construed so as to interfere with existing laws relating to the inspection of buildings, but no certificate as now provided by law shall be issued for buildings hereafter erected, or alterations hereafter made (except in such cities of the first class), unless they conform to the requirements of this act.

Sec. 4. Any person who violates any of the requirements of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in any sum not less than \$100, nor more than \$1,000; or be imprisoned in the county jail not less than ten nor more than sixty days; or both, at the discretion of the court, and shall be also liable to any person injured by reason of his violation of the requirements of this act, and shall be also liable to criminal prosecution for loss of life.

Sec. 5. It shall be the duty of prosecuting attorneys to see that this law is enforced in their respective counties, and for each conviction of violation thereof, they shall be entitled to a fee of \$25, and such other sums as may be allowed by the Board of County Commissioners.

Sec. 6. This act shall take effect and be in force within sixty days after its passage.

Mr. Yost: I move that a sufficient number of copies of this Act be obtained and distributed among the architects of this association. The motion was seconded and carried.

Mr. Yost: I would like to have this association pass an order for the secretary to distribute copies of our schedule of prices, and I would therefore move that the secretary be authorized to have printed and sent out to the members schedules of prices so that we can be supplied with them to furnish to our customers and those coming in to inquire about our prices.

Mr. Crapsey: The president of the Western Association has any number of these printed schedules, and any member is entitled to copies of them and I don't think it is necessary for this association to go to that expense. - Mr. Patton will furnish you any number you please. I want to say that I am informed that there has been a very serious change in the lien laws of the State of Ohio. I cannot say positively that that is true, but if that is the case I move that the secretary of this association obtain a number sufficient to send to every member of the association a copy of the lien laws of the state. And on the motion I want to say that there were two acts passed that are in conflict with each other and with the old lien laws and yet don't repeal the old one, and I have not been able to find any lawyer who can tell what they do mean.

On motion, the secretary was authorized to obtain copies of the new lien law and mail to each member of the association.

The treasurer came in late and submitted the following report:

There are sixty-four members in this association. Of this number there are twenty-five who owe \$3 each, four who owe \$6 each, and two who owe \$16 each—two years' dues and \$10 initiation fees; and one who owes \$13—one year's dues and \$10 initiation.

Received from members to date.....	\$513.00
Expenses to date .....	424.00

Balance on hand.....	\$ 89.00
HENRY C. LINDSAY, Treas. A. O. A.	

A telegram was received from Mr. F. O. Weary, Akron, Ohio, who sent greetings and regrets to the association.

The meeting then adjourned.

In the afternoon the association and friends were driven about the Gem City and viewed it from the tops of two trolley coaches. The fine new residence of C. I. Williams was visited and a photograph taken. The National Soldiers' Home was visited and the unique entertainment provided by the Dayton members will long be remembered by those who participated. In the evening a banquet was served at the Phillip's House, where the fare was excellent, the wine of the best and the general enjoyment made perfect by the presence of three ladies, Miss Volter, Mrs. J. W. Yost and Mrs. H. C. Lindsay.

The presence of George W. Rapp was gratifying, especially as he announced that he had no intention of giving up architectural practice

as had been rumored. Mr. Rapp, if not the father of the association, is looked up to as such, and at the initial meeting represented the Cincinnati architects and presented their names for membership.

## Architectural Federation.

ONE of the most important subjects likely to be discussed at the coming joint convention of architects is as to what shall be the nature of future conventions of the consolidated associations. Shall they be popular gatherings for the discussion of questions that arise and the settling of them by vote of the convention, or shall important matters be left largely to the executive board and committees invested with power to act, and thus the conventions lose much of the popular interest and enthusiasm so desirable. As of interest in this connection, the following is taken from a recent issue of *The British Architect*, London:

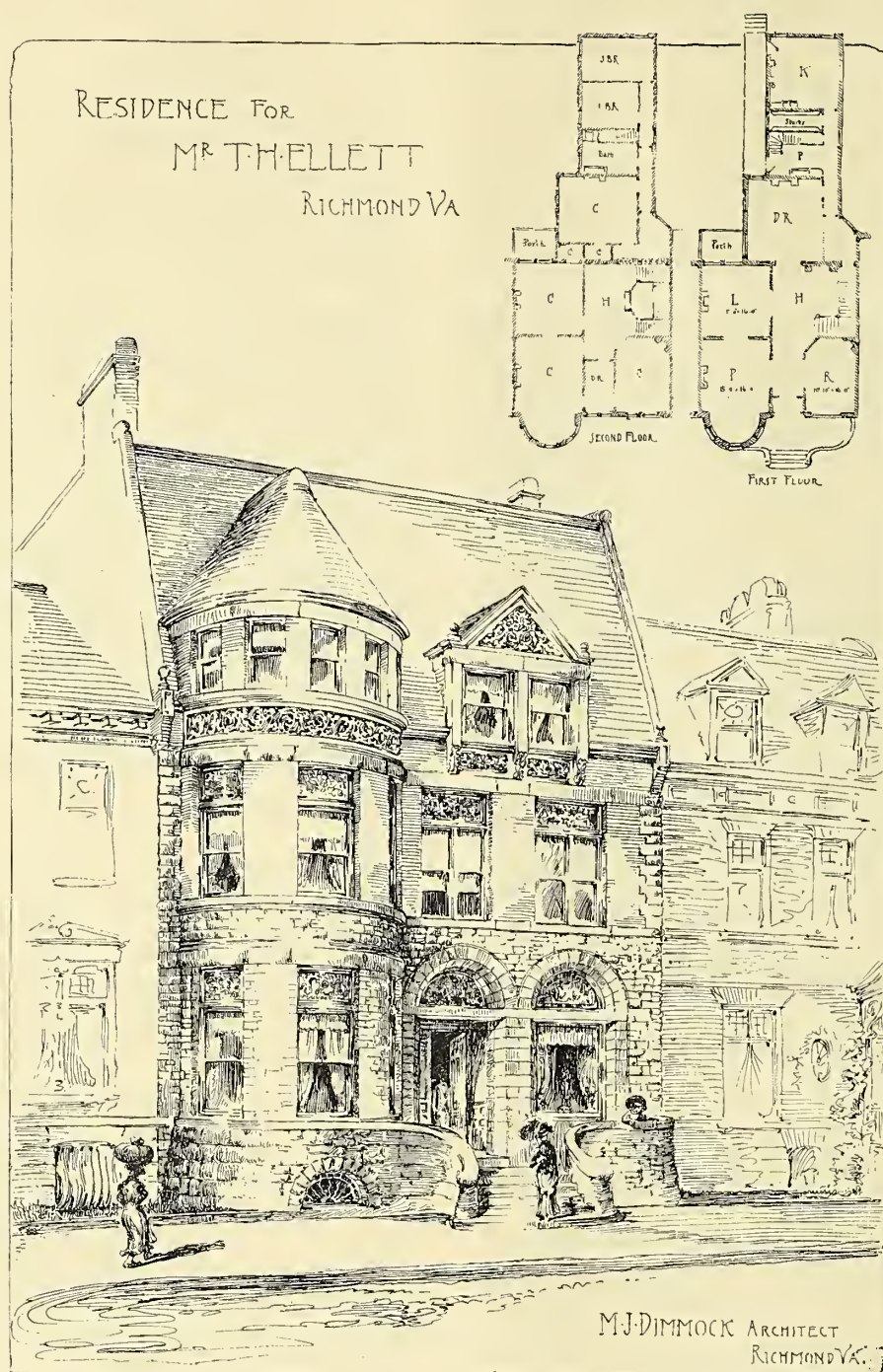
"The consolidation of the leading American architectural associations, after the manner of the federation of our English societies with the R. I. B. A., has been attended with a difficulty which does not seem likely to be very readily determined. Where is the joint convention of the amalgamated societies to be held? America is not like England, and it is a far cry from Washington to Philadelphia, or from New York to Chicago. Geographically considered, therefore, the question of a meeting place for the newly constituted American Institute of Architects is an important one. But the geographical consideration is governed by another, namely, the special object of holding architectural conventions. If the convention is to be more official than popular, it matters really very little where it is held, but, as we in England should consider London the most suitable meeting place, so it might be assumed in America that New York would in most respects be the best place. America, however, is a big country, with big ideas as to the free interchange of thought and opinion, and no small notion of what is due to the popular vote. Therefore, the natural inclination of American architects is more likely to run in the direction of a *mass* meeting than of a convocation of merely picked men and officials. And this seems to us to be the true function of a convention—to attract the greatest possible number of men specially interested, and so evolve the greatest possible variety of thought and opinion upon the subjects to be discussed, while it should also stimulate that feeling of *esprit de corps*, which seems to find but little real appreciation among architects at large, and among English architects in particular.

"Time was when architectural association in this country was a dead letter. In America, too, the movement is still comparatively young. 'We all remember,' writes Mr. D. Adler, a Chicago architect, in *THE INLAND ARCHITECT* (Chicago), 'the time when all architects lived, as regards each other, lives of cats and dogs; when the client, taking advantage of the absence of morale and *esprit de corps* in our profession, invariably made detraction of other practitioners, and statements as to how eager they were to do his work for a nominal consideration—a part of his financial argument with us; and we, not knowing personally our fellow architects, were ready to believe these statements and to shape our course accordingly. Again, it is but a short time since each of us guarded his personal knowledge and experience as his own private and individual property, as something the like of which was possessed by no one else, careful to impart no information to his confrères, thereby isolating himself from their experiences, and losing far more information and knowledge than would have been the value of that he might have been able to impart.'

"Very much of this is changed now, even in conservative England, though we do not find by any means so wide a manifestation of brotherly sympathy and helpfulness in the profession of this country as we should like to see. There is too much pettifogging jealousy and suspicion even among men who do belong to our architectural associations—too much dignity and too little genuine sympathy, too much officialism and too little real help. We have federated nearly a dozen of our leading provincial associations with the R. I. B. A., and by so doing have spread out the roots of the parent association throughout the length and breadth of the country, but it remains to be seen whether any particular good is to come out of the scheme. Like the American federation, we shall require an associated convention if that federation is to be cemented in the true bond of union. With us, however, a place of meeting would not be a vital consideration, but the issue would be the same—the gathering together of the greatest possible number of the members of the federated societies.

"Our present triennial convention of architects is a small thing indeed compared with similar meetings held *every year* by other professional bodies in England, and by our own profession in other countries. It seems as if a large proportion of English architects were neither to be attracted, cajoled nor driven into association with one another—as if the busy man were too busy, the idle man too indifferent, the clever man too clever to become brotherly members of a profession which almost more than any other demands unity, mutuality of interests, and friendly intercommunication. Probably a genuine mass meeting or two of English architects from every part of the country would help to dissipate some of this present disunion and disloyalty one to another. There would doubtless still be some who would hold aloof in the small-minded dignity of conscious superiority, or the selfish reticence of achieved desire. These can well be spared. The thing is to secure for the great majority those very real advantages which a true association of interests, hopes, and desires should bring with it. Could not this much to be desired consummation be sooner achieved by a more general and more frequent intercourse of English architects with one another than is to be accomplished at a triennial convention, or the ordinary business meetings of our various associations?"





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#### Two Important State Association Meetings.

The Illinois State Association of Architects will hold its annual meeting October 14. As this is the first meeting of the association since June, and matters of importance to the profession in the state, as well as the election of officers, will occupy the meeting, it is important that all members make a special point to be present. The second annual meeting of the Western New York State Association of Architects will be held in Syracuse, Tuesday and Wednesday, October 8 and 9, 1889, with headquarters at the Leland Hotel, where an assembly room, committee rooms, etc., have been provided for the use of the convention. It has been found necessary by the Executive Committee to change the date from the first to the second Tuesday on account of the democratic state convention, which will occupy the Leland Hotel at that time. An exhibition of architectural drawings, photographs, etc., will be one of the features of this convention, to which all are earnestly invited to contribute.

#### Preparations for the Joint Convention.

Active preparations for the joint convention are being made by the architects of the State of Ohio for the entertainment of those attending. While this is being done locally, the profession throughout the country should be active in outlining the work which is to come before the convention. It should be realized that the possibilities for future growth, which have never been so far-reaching in the history of any architectural association, should be met with the utmost wisdom and the foundations of the upbuilding be well considered and well laid. While this country is considering plans for perfecting commercial relations between the seventeen different republics composing the American Continent, why should not the architectural profession take upon itself a similar work and broaden the field of development in a like degree. We have before called attention to the fact that American architects miss great opportunities for professional advancement by forgetting that there is a vast territory on this continent outside of the United States in which architectural education is neglected, that architectural work is largely done by foreign architects and that it devolves upon those of the profession in this country to see what can be done toward changing and bettering these conditions. Then, too, the question of education is an important one. Aside from the architectural departments in a few colleges, there is no place in which the architect can receive training except in the office of some practitioner. Some definite plan looking to a national school of architecture should be developed, and perhaps in the direction of securing the introduction of elementary studies in the drawing departments of our public schools. It is the consideration of such projects as these that will tend to make the convention historical, and their patient and persevering accomplishment that will develop that much looked for but evasive, yet certain to evolve from the seeming chaos of the present, "American style." All matters that are to come before the convention for consideration should be well thought over and arranged before that meeting takes place, so that the business may be done with dispatch and still not suffer from the incorrectness that is sure to attend too hasty action. A committee should be appointed to secure proper recognition of the profession in the designing of buildings for the World's Fair.



The Revised  
Plumbing  
Regulations  
for Chicago.

The Department of Health of the city of Chicago has just issued, over the signature of Swayne Wickersham, commissioner of health, a new edition of the "rules and regulations governing the drainage and plumbing of new buildings," containing much new matter, and making more stringent requirements than ever before. These rules we publish in full elsewhere in our columns. Many of the new requirements are but the expression of what are now axioms with all who believe that human life and health are more valuable to the community than the dollars saved by cheap plumbing. A few of the provisions are so worded as to leave in doubt their full and exact meaning. A few will provoke criticism from those who, believing equally in the need of better work, yet differ in their notion of what is really the better way. One or two of the requirements are either wholly useless or else practically impossible of fulfillment, if they are to be interpreted as meaning just what the words appear to say, without allowance for a liberal interpretation. We shall be glad to publish in our columns any brief comments or suggestions that plumbers and architects may desire to make. It is a work of great difficulty to frame a set of regulations in any department of building that shall apply without qualification to any and all of the complicated structures made necessary by modern conditions; and methods of plumbing and drainage are no exception in this regard. It is no easy matter, under constantly changing conditions, to frame a series of general regulations that shall at the same time compel good work and allow such latitude in choice of methods, materials and inventions, as will permit of the adoption of the best way or thing for the specific case. It is for this very reason that many details of such regulations should be left, so far as possible, to the discretion of a competent official, whose rulings, not being matter of statute, may be the more readily revised to meet the demands of these changing methods, materials and appliances. It is not strange that each decided move toward more stringent requirements should call forth discussion, and meet with some honest opposition. But only good can come of such moves, whether the resulting discussion proves the changes wholly wise, or defective in some few points. We are extremely glad that the Department of Health of this city has resolved to tighten the reins.

Some Details  
of the New  
Plumbing  
Regulations.

The revised regulations for the plumbing and drainage of new buildings prohibit "the use of pan closets." We hope that this is a post mortem provision, and that the pan closet has died a merited death before this. We should even be willing to see included in this prohibition the valve and plunger types of closet, being willing to spare the better of this sort for the sake of being rid of the worse forms. The provision that the soil-pipe shall be extended two feet above the highest part of the roof is useless in a building with a high-pitched roof without dormers; down drafts not being objectionable so long as air actually has a free circulation either way. There is no explicit prohibition of the use of wrought-iron soil and waste pipe, but its use is by implication forbidden in the affirmative provision that "All iron pipes must be sound, free from holes or cracks and of the grade known in commerce as extra heavy"; and that "Tar-coated cast-iron pipe shall be used." The former clause is followed by a list of weights to be taken as the standard, the weights mentioned being those of extra heavy

cast-iron; and the natural interpretation of the latter clause is that "iron pipe shall be cast-iron and tar-coated," though a strained interpretation might make it mean that if cast-iron pipe is used it must be tar-coated. If, as appears probable, it was intended to exclude wrought-iron soil-pipe, the advocates of the Durham system will certainly ask for a reopening of the question. By the paragraph relating to the protection of traps from syphonage, we understand that back venting is required for every trap. We incline to think that this ruling is premature, since it decides *ex cathedra* an open question in which the argument is by no means all on one side, nor the final outcome assured. There are in the market several traps and several types of syphon closet for which the claim is made that they are unsyphonable under any conditions found in actual practice. If this claim can be substantiated there is evidently a great gain in simplicity and economy by the omission of the vent-pipe and its connections. The paragraphs with regard to refrigerator wastes and sediment pipe from range boilers, while wise in intention, do not take sufficient account of requirements often met in practice in the matter of location of fixtures. The provision with regard to ventilation of rooms in which water-closets are placed commands emphatic approval. We are not sorry to see the wooden washtrey go; it was sure to linger till such a summary requirement put an end to its musty career.

A Prize  
Competition  
for a National  
Emblem.

A gentleman in Scranton, Pa., Colonel J. A. Price, to test his belief that in Indian corn can be found the most adaptable plant, both in art and architecture, for adoption as a national flower, has sent a communication on the subject to the *Decorator and Furnisher*. That journal outlines Mr. Price's arguments and states his plan as follows:

It is, of course, maize or Indian corn which possesses unusual variety in its stalk, leaf, plume, silk, husk and ear, every part of which in form is intrinsically and essentially beautiful and capable of adoption extensively in both art and architecture. Nor does variety end in its form, its grace of line and its light suggestive movement, but it is most richly abounding in colors that refresh and cheer, the greens of summer and the gold of autumn, each in splendid variety and of astonishing delicacy. The fruit even affords still a field for expansion, both in general form and in detail, while the shaded white of the white ear, the tinted red of the red ear, and the shaded and tinted yellow of the yellow ear, all contribute to infinite variety and immense possibility in ornament.

Colonel J. A. Price, of Scranton, Pa., has authorized us to offer three prizes amounting to \$100, and divided into a first prize of \$50, a second of \$30 and a third of \$20 for the best adaptation of maize in the industrial and architectural arts.

No limitations are imposed upon the designer as to material, and workers in the metals, stone, glass, wood, paper, textiles, etc., are all invited to compete.

Suggestions in architectural design need not embrace a whole building but merely some distinctive part to characterize the whole.

All designs, which must be in black and white, should be received at this office on or before December 5, 1889, and bear a fictitious signature, accompanied by a sealed envelope having on the outside a similar signature, and inclosing the name and address of the designer.

The following gentlemen, who are eminently representative in different departments of industrial art, have consented to act as a committee of award: Herbert E. Streeter (J. F. & J. G. Low), E. Spencer Hall (Herter Bros.), Alfred Trumble (art critic).

This would seem to us to be an immensely interesting competition, and while we are not prepared to indorse completely this choice of a national emblem, still we should like to see a large number of carefully prepared competitive drawings submitted in the competition as it is in the direction of a higher development in art and architecture.

The Expert in  
the St. Louis  
City Hall  
Competition.

It is now authoritatively announced that Professor William E. Ware, of Columbia College, New York, has been tendered the position of expert in the competition for the St. Louis City Hall, and has signified his acceptance. No wiser selection could have been made, Professor Ware having already acted several times in this capacity with distinguished success, and being equally popular with both eastern and western



architects. The city hall committee will claim ownership of all premiated designs, as announced in their code. All other designs will remain the property of their authors and will not be used in any degree unless by subsequent arrangement with their owners, and adequate compensation. While an exhibition of the designs received would be regarded favorably by the city authorities, no decision can be announced at present. Probably it will be necessary to await the arrival of the drawings, and then to arrange with the competing architects as to the exhibition and the manner of conducting it. There are many reasons why such an exhibition is desirable, both as a matter of public education and as an advertisement to the architects participating. It is to be hoped that some plan will be devised for a suitable display of what now promises to be the finest set of architectural designs ever presented in a public competition in this country. The date for the receipt of all plans is November 1, 1889.

**An Official Journal Published By the N. A. B.** An important movement in the work of the National Association of Builders is the establishment of a regular monthly publication, called *The Builders' Exchange*, controlled and edited by Secretary W. H. Sayward. The unsatisfactory results of the work of sending circulars of information to the different members of exchanges, numbering over five thousand, was the prime cause, and the result is a well gotten up and printed sixteen-page journal. The August and September numbers at hand contain articles by the editor upon the pressing questions of the day, such as permanent arbitration, apprenticeship, etc. An exhaustive article upon the value and use of the standard contract is valuable and convincing, and it is to such purposes as these that the pages of the journal will be devoted. Reports from affiliated bodies and letters from members, discussions of trade methods, etc., will conduce to make *The Builders' Exchange* much sought after by every member who aims at progression and business success. That the journal will be carefully edited and never allowed to drift into fields that will bring the association which it represents into disrepute, is not doubted by those who know its editor. His judgment is seldom, if ever, at fault, and in our opinion has never been more correct than in placing a regularly circulated periodical full of matter pertaining to the practical work of the class before the members of the National Association. We welcome the journal, and congratulate the association upon possessing a secretary with such undoubted genius for organization and cool judgment of the needs of his profession.

**The Delays in the Grant Monument Competition.** It is something over four years since a monument to General Grant was projected at New York City, and while we have refrained from remarking upon the progress or rather lack of progress that has characterized the movement, it has been referred to in the public prints until its consummation has become somewhat synonymous of the millennium. While we cannot give the causes for the delay, we can give the facts, and they speak for themselves. The monument took tangible shape in a meeting of one hundred citizens said to represent three or four times that many million dollars, who formed a monument association, with Professor Richard T. Greener secretary. It was also said that this was a sufficient guarantee that the competition would be an honorable one, and the limit was placed at \$500,000, but one design was received to cost \$900,000. After once extending the time limiting the reception of designs from

November 1 to January 2, in itself an unwarranted proceeding, the competition was declared closed by the monument association on January 2, last, and on January 15 a board of experts was appointed. These, selected from among the most notable of New York architects, were Napoleon Le Brun, James Renwick, Professor William R. Ware of Columbia College, George B. Post, Professor S. Wolf and James E. Ware. The drawings were not hung for the inspection of the board of experts until March 5. The experts immediately proceeded with their work and prepared their report and it was supposed that on April 27, the anniversary of Grant's birthday, that the association would make its final report. This was not forthcoming at that time, and there now seems little prospect of a final announcement for some time to come.

**Unwarranted Publication of the Grant Competition.** Meanwhile, one of the conditions of the competition was not only that the authorship of designs should not be revealed, but that the public should not see them until after the award. Notwithstanding this, as early as March or April the privilege of photographing the designs was sold to a firm of publishers, and about May 18 an article illustrated by fifteen of the sixty odd designs was published in whole or in part by those papers throughout the country that cared to pay the magnificent sum of \$12 for the privilege. And now comes the second and most censurable breach of confidence, in the publication of the alleged premium designs in advance of the association's report. It is useless for the secretary to say that no one in his association could have been guilty of this breach of trust. The selling of the privilege to photograph and publish, which must have been officially authorized, is sufficient to indicate that some sort of a bargain was made and the contract is simply being carried out. If it were not for this most positive of circumstantial evidence, some suspicion might involve the members of the board of experts. As it is, they just escape the fate of those who are found in bad company. It is hoped that the Grant Monument Committee will immediately announce the result of the competition, and that they may escape the almost certain civil prosecution for allowing the publication, by the architects who have copyrighted their designs. The moral to this tale is that which can be read in the history of almost every public competition which this country has seen. If architects will compete under other rules than those which they themselves have laid down as proper, they must expect ill treatment. Otherwise, the result seems to be the same, whether the committee be composed of one hundred millionaires or the commissioners of Wayback crossroads.

**An Upward Tendency in the Material Market.** While the commercial interests of the United States have not suffered from panic, or even an apparent loss of confidence in the different lines of trade, there has been a certain depression observable, and in the building material line, which includes such a large part of our manufactures, from iron and steel to lumber, prices have ranged lower than ever before, except in times of positive panic. It is apparent that with an upward tendency in all markets there is commencing to be felt a corresponding demand. In iron, prices have advanced twenty per cent in less than two months and the supply does not equal the present demand. As iron is the barometer of trade and by its rise or fall is the general trade of the country indicated, it is apparent that we are entering upon an era of greater and more prosperous activity.



## The Art Exhibit at the Chicago Exposition : Notes and Observations.

BY H. C. PAYNE.

WE shall try and recognize a fact not recognized at all in that large proportion of writing on art that is written for its own sake, and we think not sufficiently in that smaller quantity that is written for the sake of the art it characterizes, namely, that the pleasure and use to be found in any art production worth writing or thinking about, lies in an understanding of what it does rather than of what it fails to do. Such painting as does not express somewhere, in some degree, some insight, some sensitiveness beyond the average possession, that alone makes the artist and justifies the calling, we do not consider worthy of serious thought or comment.

While admitting the value of that balance in faculty which renders the observer sensitive to the faults as well as to the virtues of a picture, we believe that sound ends in art criticism are only served when the writer, not ignoring failure and incompleteness in the work considered, dwells mainly upon its achievement. So reversing the fashionable method which uses the faculty of observation mainly in the discerning of faults which, estimated from the standpoint of the artist's intention, are relative and secondary, and the power of literary execution (literally execution for the artist) in the exploiting of them bringing but a poor remnant of energy to a consideration of those things in his work which are its essence and reason for being, we shall use our *best* endeavor to convey an impression of the good in the works we consider.

It is, perhaps, impossible for any individual to form an entirely just estimate of many of the paintings in a collection so varied in scope and aim as this year's art exhibit at the exposition, many of the canvases being the expression of personalities, and temperaments more or less at variance with his own. So if he would avoid frequent and gross injustice in estimates, he must constantly sit upon himself in judgment. We find in the opportunity afforded by the large number of the works of one of the most notable among resident American painters, William M. Chase, a justification for a more lengthy estimate of this painter than the relative value of his work in the exhibit would justify.

We are impressed first with his extreme facility, a facility which enables him to treat the most diverse themes, and *nearly* always in a way that gives his work some legitimate reason for being. To say as it has been said that his is only a faculty of the brush is to ignore some qualities less obvious undoubtedly than his more insistent ones, and less easily defined, but none the less facts to be taken into any critical estimate of his work. The reason that these finer qualities are less obvious lies in the fact that they are contained mainly in his smaller canvases and only rarely found in his larger ones. Really, these larger canvases convey an undue impression of characteristics. They represent in fact but the smaller portion of the energy here expended. Yet by virtue of their large claim upon the eye, they form the largest factor in a cursory estimate of this painter's art, which, inasmuch as they are the least adequate, and accent most sharply the painter's deficiencies, is of necessity an undervaluing one. We think that Mr. Chase has, with one exception, expressed the best of himself in his landscapes. The exception is the pastel portrait of his wife—No. 114. This picture, we believe, on the whole, to be the best in the room. Within its requirements it seems to us complete. The figure is spontaneous and the face expressive. The drawing is superb. While we are conscious of a decorative intention in the blue-green scheme of the canvas, an intention well realized in its delicately harmonious notes, yet the figure and head are so well conceived and painted that the idea of the individual is not subordinate or suppressed, as we shall have occasion to note is sometimes the case in other canvases of a similar scope. Among the other canvases that demonstrate the inadequacy of the estimate resulting from the considerable preponderance in point of space of such mere cleverness (respectable in its way) as the red background with the girl accessory, and No. 80, portrait of a pink dress, we would designate No. 133, "In the Park." The picture is a wonderfully true transcription of a bit of park landscape; the foreground dotted with filtered September sunlight, which floods unhindered the trees and lawn beyond. The more subtle facts of air and light, and the more palpable ones of space and form, are perceived and rendered with delicacy and truth. There is in it none of that vanity of the brush that leaves so many of his canvases empty of aught finer than textures and treatment, and decorative values of color. This undue technical consciousness, which seeks first artistic manner, is here subordinate to an earnest striving after the thing *itself*.

No. 84, "Hackensack River," is another example of Mr. Chase's capacity to see and express the less superficial facts in a landscape theme. Here is a gray *spirit* of a gray day revealed through the palpable tangible forms of it, and with an ease and facility of treatment altogether delightful because not an end.

No. 76, "The Terrace, Central Park," a bit of gray midday summer sunlight, is a most carefully executed piece of park landscape. The difficulties offered to the painter in its slightly contrasted tints and values are met and overcome by a direct and painstaking execution. You feel a certainty as to its spaces and clear definition in its great variety of tree and shrub forms. The painter has refrained from the clever shorthand which he so well understands, recognizing that it would here be inapt, for no less degree of representation could so satisfactorily convey that characteristic of subtle definition which is the special appeal of the theme.

No. 74, "Summer," illustrates further the same qualities in the painter. It is painted with the same keen perception of subtle differences, the same sympathy with summer and sunlight. It is, we think, even better in quality than No. 76. No. 77, "Early morning in the Park," is another picture of the same scope, and is painted in the same spirit as 74 and 76, and as thoroughly delightful. No. 70, "A Gray Day in the Park"; No. 120, "Sunlight"; and No. 121, "Boat-house," also demonstrate a faculty of close and sympathetic observation. We do not think or assert that these landscapes are the expression of a very high thought in landscape art. They are too nearly transcriptions, and not enough interpretations. They contain too little of that rarer charm found only in the exceptional and fleeting. Though he is, even in his best work, always more the painter, the transcriber of qualities and facts, using them more for their own sake than for the sake of a thought inspired by them; yet in these landscapes and in such a portrait as 114, representing in their technical qualities much trained energy and admirable alertness of faculty, rarely at fault in respect to the surfaces of things, we find also evidence of intuitions and understandings that bring him sometimes in touch with the spirit and essence of them, and justifies an estimate that ranks him at his best, not only painter but artist. We will now note a few pictures which best illustrate Mr. Chase's most characteristic faculty, namely, a fine decorative sense as to color, forms and arrangement, and a brush with *one* exception capable to the point of illusion in treating surfaces and textures. "Little Lord Fauntleroy" is a masterpiece of superficial painting. The grace, at least, if not the deeper charm of a sweet childhood, is here. The costume and furnishings of curtain, rug, chair and cushion are well conceived as relative color, and marvelously painted. Its limitation is that it contains only so much of the *idea* of the child as does the stage picture without the text. The child does not speak, he only poses, though *very* well.

In No. 80, "The Lady in the Pink Dress," or more fitly the pink dress on the lady. There is the same marvelous execution. The dress could not be better painted. If 65, "A Comfortable Corner," a Japanese conception, were as frankly decorative as the art which has inspired it, it would be thoroughly delightful; as it is, the artist has painted a very fine piece of furnishing.

In many of his pictures, as in No. 114, his color motive has but a few notes, here he uses the whole gamut of color, and harmoniously. The failure in the picture is in the head. As a representation of the substance and texture of flesh within its own semi-decorative requirements, it is bad, and it subordinates almost to the point of suppression the idea of the individual. This subordination, a serious fault here, becomes intrinsic failure in the portrait of the lady in pink. Although in no art not frankly decorative, can any firmness of decorative treatment or conception justify the lack of human idea in a figure and head which, as in "A Comfortable Corner," form the chief feature in a canvas, yet this picture has so much of the intention and contains so much of the charm of an art which, within its own scope, is sufficiency, that we can almost accept as adequate its decorative achievement. In this portrait in pink it is otherwise; here is no sufficient decorative compensation for its failure in representation of the individual. If solidity is not the highest technical value in a lady's portrait, and although the painter may, by too uncompromising a rendering of the third dimension, sacrifice too much of the delicacy which is characteristic, and should also be an aim, yet mere prettiness will not compensate for the lack of this quality. Nor will masterly workmanship in the painting of a dress qualify failure in the rendering of personality, where personality is or should be the intention, or serve but to accent it, as here. We find, then, in Mr. Chase's art, as suggested by the contents of this room, these limitations, a faulty technical faculty, in respect to the third dimension, which



nearly always, while defining clearly the material and textures which clothe his large figures, leaves some uncertainty as to the underlying form. A failure in his large heads in respect to quality and texture, as well as substance of flesh. A lack of those subtler faculties of observation and expression which save feminine grace and delicacy from prettiness in his more finished execution, and characterization from any touch of caricature in his bolder and more suggestive treatment; and, finally, in his painting of life, an absence of sympathy with the personal and the real, which, in his conception subordinates always (as even in No. 114, portrait of his wife) the idea of the *person* to ideas of decoration or of execution.

Among the host of good pictures which form the bulk of the rest of this collection, there are a few which separate themselves from the others in our interest, and especially inspire thought. Of these we shall mainly speak. We would designate as first in charm and repleteness of suggestion, No. 63, "Twilight," by Cazin. Slight as it is in intention, it is, we think, the most perfect picture in the collection, for no other unites in such perfect balance so high a degree of inborn artist's faculty and painter's science. It seems to us a principle in so material an art as the painter's, that execution should equal thought; especially we feel that in such a theme as this, the least vagueness or uncertainty in expression would sensibly hinder the conveying of that rare immaterial charm which is its special appeal. From this picture so consummate an artist as Tryon may learn that the stillness and even the mystery of evening may be best rendered by a direct painter's treatment. In "The Rising Morn," 417, by Tryon, although you feel that the *artist* has entered deeply, and with perfect sympathy, into the beautiful spirit of his theme, a sense of striving on the *painter's* part, hinders our full enjoyment.

In "Early Spring Evening," No. 419, the painter's art is more perfect. We do not wish to imply that this artist brings less than a fine technical intelligence to the interpretation of the rare and beautiful moments he elects to paint. In fact, his methods seem to us to have a rare adaptation to the requirements of his themes, we wish to point out the supremeness of the art in Cazin's picture rather than to qualify Tryon's. Mr. Inness is the pure idealist in the later developments of his thought in landscape art, possessing more feeling than innate workman faculty, and hence lacking some of the capacity for masterly craftsmanship, which, when united, as in Cazin, with the deepest feeling, is more perfect qualification, yet his passionate love for nature has wrought for itself a mode of expression less direct in itself, and less directly reached than Cazin's, but finely adaptive, and intensely personal. Mr. Inness always feels first the characteristic and typical fact in his theme, and impresses you with it. No. 250, "Spring," is more than an *incident* of spring; it is an *idea* of it, of its vivid yet tender green, of the cool mystery of its woodland spaces. It is better than nature; it is a great artist's thought about it. In 252, "Sunlight in the Woods," is conveyed the same strong impression of the typical charm of time and place. There is no undue and disturbing consciousness of trivial incidental fact or form. His trees, his grasses, his figures, his skies, do not exist for their own sake, but as the medium of a thought, here a thought of filtered sunlight, there a thought of tender spring.

No. 56, "The Crane Ornament," by Brush, represents an Aztec Indian executing in low relief on a marble wall a figure conventionalized from a crane which he studies as a model. This is one of those rare canvases that paints an incident so truly and with such intuition of its most vital moment that it carries you far outside of its own bit of story-telling into all kindred activity. The pose of the figure suggests that he has turned his head from studying a feature of his model more in front to regard a part farther behind him. The relation of the head to the shoulders might be for a moment spontaneous and easy, but could not be sustained as here without constraint. This evident unconsciousness of an equally evident constraint, conveying an impression of absorption, is that touch in conception, taken with almost perfect execution, which makes this picture typical, great, an epic of a distinguishing energy of a race civilization.

One of the most beautiful effects of sky and water that we have ever seen is No. 389, "Calm Evening," by Edward Simmons. The picture is painted with a masterly directness. It represents, to the degree of illusion, an exquisitely beautiful condition. The gentle glow of the eastern sky, with cumulous clouds still illumined by the sun, just set, is reflected to the horizon in water so still as to almost repeat both color and form. This stillness is accented by the long wake of a passing boat. In the rendering of calm, of expanse, and of exquisite charm of color, it is equally good.

Mr. Alexander Harrison has eight canvases in the collection, furnished out of the remnants of an old impulse, whose freshness was

spent long ago. In relation to "Le Crepuscule," which was exhibited here several years ago, they are commonplace, although two or three of them are charming pictures, notably 232, "The Wave."

In Frank Weston Benson's "Storm," No. 9, we feel the freshness of contact with nature that we do not in Mr. Harrison's. There is no picture in the collection which so well represents the movement of water. Mr. Benson's other picture, "Orpheus," is painted with just that subordination of realism in representation that its conception, an essentially decorative one, demands. It is, in its own semi-decorative way, a thoroughly delightful picture, equally charming in composition and color. In "Vespers" and "Portrait of a Young Woman," by Gari Melchers, we find no reason to question his right to the very high place given him by the most competent professional estimate of today. The portrait seems to us the best illustration of the characteristics we wish to distinguish. As a picture, and as a representation of an individual it is complete, satisfying. The whole treatment of the canvas, while it leaves all ideas of painting subordinate in our consciousness to the idea of the person, meets also all the material requirements of a high painter's art. It is a fine example of the best kind of realism in painting, the realism that clearly defines accessory and subordinate facts, without making them unduly insistent; a realism that, while possessing all the *go* of actuality, has yet an indefinable quality of reserve that raises it above mere gross materialism. We are aware of the substance of this figure, of the solidity of this head, of the color and texture of flesh, of the material and textures of this dress, of vibrating complements of harmonious color, but only as assisting a personality; in a word, as a representation of an individual, with *just* that emphasis that life itself gives in a moment well selected in respect to time and place, to the characteristic and personal; it is within the limits of art, complete. There is, however, another conception in art, one which necessitates in the observer a special point of view, a conception which places value in the fineness of the artist's thought about the persons or things he paints, rather than in vivid presentation of them. A good example of such conception is Mr. Abbott Thayer's portrait of two children, No. 411, especially the head of the girl.

Between this head and that in Mr. Melcher's portrait we can draw a more direct comparison than between the two canvases, for Mr. Thayer's picture as a whole does not so perfectly, as Mr. Melcher's, meet the requirements of its own thought. In this head there is certainly less vividness of portrayal of substance, quality textures and color of flesh, than in the other; in fact, there is some obvious failure in these respects which makes it unsatisfying to a degree to the observer into whose conception of high achievement in art enters, as a first condition, the idea of vivid transcription of obvious fact, yet it contains for some natures a higher charm than the other. No analysis or definition can convey to another this painter's thought of sweet childhood realized in this head. To those for whom it was painted it comes. If the whole canvas were as well painted within its own requirements as this head, it would be a great picture. The head of the younger child, while happy in suggestion, stops some short of proper definition, and the hands and wrists, while assisting the thought in conception of pose, are not very good, either as representation or suggestion, the hand in the left corner being absolutely bad. Mr. Charles E. Boutwood's portrait of Luther Laffin Mills is an exceptionally telling presentation of a marked personality, conforming both in conception and execution to the requirements of that higher portrait art which lays hold of and emphasizes distinguishing traits. It makes emphatic without staginess or cheap posing the idea of the jurist prosecutor. It is a portrait not easily forgotten. Mr. St. Gauden's portrait of Robert Louis Stevenson is an example of consummate art in the sculptor's medium of low relief. When the sculptor has for means of expression three dimensions, as when he works in full relief, the rendering of mere form is comparatively easy. In low relief which adds the painter's problem of the third dimension to his own special ones, masterly technical achievement is rare. When it exists as here, and not as an end, but as the medium for the expression of a rare and subtle personality which it realizes, it becomes great art. Here is thought and execution, each existing in a supreme degree, masterly craftsmanship and perfect conception. This portrait also, as Cazin's "Twilight," is complete art. "The Trumpeter," by F. D. Millet, is a remarkably fine piece of characterization. It is suggested by a personage in "Knickerbocker's History of New York," and is as fine in its painter's conception as Mr. Irving himself. It has the same spirit of quaint humor saved always from caricature.

We note others that are especially good, which we have not space to characterize.



## The Artistic Use of the Imagination.\*

BY LOUIS H. SULLIVAN, ARCHITECT.

HE is an artist, who, gifted with a capacity to receive impressions, and to transmit them in a more or less permanent form, adds, to the body of his work, a certain quality of spirit characteristic of himself.

This individual quality is natural to him as is his walk, or his gestures, or the inflections of his voice; and when the work of his hands first begins to assume that definiteness of form announcing growth, he for the first time, and with a certain joyful surprise notes those peculiarities, incidental or deep-set, as the case may be, which mark his work as a something existing more or less independently of the work of his fellows.

These peculiarities he will note much as one might see his own features for the first time in a mirror: that is to say, as something which unmistakably exists, and which, though he did not and could not create it, he nevertheless feels to be his own.

He is quick to perceive these beginnings, to mark their tendency, and to foster their growth; for he instinctively knows them for true children of his own emotions, and he is pleased with the likeness. He knows that he has had within him certain thoughts, certain feelings, certain longings; that the people and the objects daily surrounding him produce on him certain attractions and repulsions from which his aptitudes and the drift of his ambition take their rise and shape their course. He knows that many sights and sounds are food for him, that some make a stifling, others a wholesome air to breathe.

It is not probable that he reasons much about these things, for the true artist is, as he should be, rather a creature of instinct than of reason. It is only when, to the qualities of artist are added those of poet, that reflection takes a powerful hand in shaping the results.

Yet the artist will naturally seek in thought to project the line of his tendencies toward its goal, much as the mariner outward bound, after many days looks anxiously for the land. But the voice of the topman shouting "land ho!" does not bring that land a little nearer; for the wind must blow, the sails be trimmed, the helm shifted, soundings made, the pilot Prudence taken aboard and time elapse before a safe haven can be made and the cargo called secure. The artist is much such a ship,—a creature of wind and current, rising and falling on an unstable and capricious sea. Yet has he a compass and determined rudder, and if storms be not too fierce he will arrive.

Or shall I say that the artist is more like a rounded year, ushering in with a clamorous and nimble springtime, bearing charming flowers in his heyday, sobering and quieting with the heavy growths of summer, bearing rich fruitage in the mellow autumn. For the lapse of time thus works these varied changes, and the lapse of time alone can cause the artist flower to ripen into fruit. This flower is his own sensitive nature, needing, perhaps, to be fertile in its bloom, the presence of the busy little bee of self-deception and complacency. Ere long one by one the pretty petals fall and the serious business of growth and ripening proceeds. For a long time the fruit is green and unsavory, but it promises much and in the end fulfills when maturity with color and sweetness come to it. Some natures indeed are like the persimmon, and need a sharp frost to bring out their flavor.

Or shall I say, with perhaps nearer approach to the truth, that the artist is like an orange tree,—bearing, continually, flowers, and ripeness in every stage,—pendant golden thoughts in the last,—fruits all of that sap we call imagination.

Letting these comparisons go for what they are worth, the fact remains prominent that the growth of any faculty is very slow, that its normal course cannot be hastened,—that the element of time cannot be eliminated from any natural process, that continued nourishment and the putting forth of endeavor are necessary to insure healthful growth.

To produce vigorous results in art the emotions must follow close upon the mind and give it sure support. Sometimes the mind, in its own perversity, travels on ahead and alone; there then comes about that disjointed condition which Solomon characterized as the "Pride which goeth before destruction," and which, in more homely modern parlance we call the "big-head."

Slowly and patiently therefore must be accumulated and stored those small and frequently homely experiences upon which, in the aggregate, the imagination rests, as a tower upon its foundation. And these small experiences, to produce a real result must be of two distinct kinds, namely; first the prosaic and sometimes tiresome happenings and learnings of every day, the patient coming into touch with many things through the senses and the observation, coupled with a willingness to do one thing at a time and give one's whole attention to it; for it is axiomatic that to know one must touch; from every touch there comes a sensation, and it is this sensation that we call an experience. Memory preserves these experiences for us intact, and the longer we live the greater does the accumulation become, the more elastic our feeling of strength, the more secure our equipoise in difficulty, because the more precise and ready our sense of reality.

Nothing is more interesting to me in examining a masterpiece, than to observe the vast wealth of small experiences that is to be seen stored up in it. They do not give it its quality of mastership, that were indeed a puny view to take of a large thing, but just as surely it would not be a profound work without them; for the imagination is impotent without this basis of common and matter of fact experience and can no more make its spring than can the line without a firm footing.

These experiences we speak of as practical, and their sum we call a knowledge of detail; if one yields wholly to their influence, the results in the work are likely to be rather dry, methodic and precise,

correct as to mechanics, but devoid of a certain finer truth, a more subtle accuracy, a still more delicate touch, a yet more exact sense of reality; these latter qualities are the final attributes of true art, and to impart them to his work the author must have passed through and accumulated in connection with the practical, a second and distinct set of experiences which amplify the practical and give to it the keen intuitive incisiveness of life, namely, the emotional.

The sensations of a true artist are always complex, for, to susceptibility of the senses he adds susceptibility of the heart. Every object therefore that he regards will give him a double sensation, specifically the sensual and the emotional. The two should in truth come so interblended that they will appear to be one impression, and such an impression can be nothing less than an artistic experience.

Emotion is a big and a high-sounding word, which appears to fit something occurring only rarely and to the few. Yet when we stop to consider that emotion is simply the attention that the heart gives, and is as natural and easy as the attention that the sense of sight or of hearing gives; when we think at a glance of the infinite variety of objects and actions that may be seized on by the eyes, the ears or the hands, separately or collectively, it becomes easy to see how immense may be the corresponding variety of emotions, reaching from the simple, the calm, the sedate, the joyous, through the serious and melancholy, to the complex, the turbulent, the sublime.

Nor should it be forgotten that among the more important of one's experiences are those derived from contact with his fellows, with the works and thoughts and experiences and qualities of those who have gone before, and last, but not least, from the communion of the artist with his own spirit.

We see now therefore how, if he be simple and wholesome in his nature, the surroundings of an artist appeal to him, and in what manner he may answer the appeal. Into all that he sees he enters with sympathy; and in return all that he sees enters into his being and becomes and remains a part of him. Walt Whitman beautifully expresses this idea in one of his shorter poems:

"There was a child went forth every day,  
And the first object he looked upon and received with wonder, pity, love, or  
dread, that object he became,  
And that object became part of him for the day, or a certain part of the day, or  
for many years, or stretching cycles of years.

"The early lilacs became part of this child,  
And grass, and white and red morning-glories, and white and red clover, and  
the song of the phœbe-bird,  
And the Third month lambs, and the sow's pink-faint litter, and the mare's foal,  
and the cow's calf,  
And the noisy brood of the barnyard, or by the mire of the pond-side,  
And the fish suspending themselves so curiously below there—and the beautiful  
curious liquid,  
And the water-plants with their graceful flat heads—all became part of him.

"The field-sprouts of Fourth month and Fifth month became part of him,  
Winter-grain sprouts, and those of the light yellow corn, and the esculent roots  
of the garden,  
And the apple-trees covered with blossoms, and the fruit afterward, and wood-  
berries, and the commonest weeds by the road;  
And the drunkard staggering home from the out-house of the tavern, whence he  
had lately risen,  
And the school-mistress that passed on her way to the school,  
And the friendly boys that passed—and the quarrelsome boys,  
And the tidy and fresh-cheeked girls—and the barefoot negro boy and girl,  
And all the changes of city and country, wherever he went.

"His own parents,  
He that had fathered him, and she that conceived him in her womb, and birthed  
him,  
They gave this child more of themselves than that,  
They gave him afterward every day—they and of them became part of him.

"The mother at home, quietly placing the dishes on the supper table,  
The mother with mild words—clean her cap and gown, a wholesome odor fall-  
ing off her person and clothes as she walks by;  
The father, strong, self-sufficient, manly, mean, angered, unjust,  
The blow, the quick loud word, the tight bargain, the crafty lure,  
The family usages, the language, the company, the furniture—the yearning and  
swelling heart,  
Affection that will not be gainsayed—the sense of what is real—the thought if,  
after all, it should prove unreal,  
The doubts of day-time and the doubts of night-time—the curious whether and  
how  
Whether that which appears so is so, or is it all flashes and specks?  
Men and women crowding fast in the streets—if they are not flashes and  
specks, what are they?  
The streets themselves, and the façades of houses, and goods in the windows,  
Vehicles, teams, the heavy-planked wharves—the huge crossing at the ferries,  
The village on the highland, seen from afar at sunset—the river between,  
Shadows, aureola and mist, light falling on roofs and gables of white or brown,  
three miles off,  
The schooner near by, sleepily dropping down the tide—the little boat slack-  
towed astern,  
The hurrying tumbling waves, quick-broken crests, slapping,  
The strata of colored clouds, the long bar of maroon-tint, away solitary by  
itself—the spread of purity it lies motionless in,  
The horizon's edge, the flying sea-crow, the fragrance of salt-marsh and shore-  
mud;  
These became part of that child who went forth every day, and who now goes,  
and will always go forth every day,  
And these become part of him or her that peruses them here."

To the Philistine, Whitman will ever be a bare and desolate rock; yet let him of artistic nature strike this rock with but the gentlest breath of sympathy and he flows forth, a clear, copious, never-ceasing spring of limpid water,—good for the body and good for the soul.

This poem contains in its form all that I have thus far said, and incloses by its suggestiveness and its indirect purport all that I am likely to say of the subject in hand. I may well therefore take it as a text, and a firm-footing for the short imaginative spring that I shall make from here to the end of my address. For it is clear, or I conceive it to be so when I test the matter by my own judgment, with an eye on cause and effect, that the true meaning of this poem lies mostly in what is left unsaid; that the poet ceases when he has excited the sympathetic thoughts of the reader, and leaves to the imagination of the latter the work of extending the impulse as far as may be. It is this capacity to excite responsive imagination that

\* Paper read before the Chicago Architectural Sketch Club, October 7, 1889.



characterizes a poet; 'tis a sign that he provides the active germs of thought; that he has compressed much into little. Much comes from him because much has come to him; what, then, shall come from the child who went forth every day? Is not the child the artist? If others were so much to him, and so influenced him, if all the objects that he looked upon and received with wonder, pity, love, or dread, so wrought upon him that in sympathy he became them, and that, absorbing them they became a part of him, will not they, when he, so enriched, seeks to voice himself, will not they indeed live again and show again in that work which he must perforce of his very nature regard with such warmth of love that it becomes himself and he it? And what is himself but the sum of his experiences and faculties! Therefore if his work is himself, it, in turn, is the sum of his experiences and faculties. It needs, then, only the saying to make clear the profound truth which underlies and incloses even this poem,—“By your works shall ye be known.”

Here I would wish substantially to end, leaving these few thoughts to stimulate your imaginations as the poem stimulates mine, as nature and his fellows stimulated the poet; leaving it to you to supply what has been left unsaid, to carry on such impulse as there may be as far as you may.

But, lest you should tend to consider this sort of writing too metaphysical, too fine-spun, too impractical; ornamental rather than useful; I will not leave you till I have laid my finger at the side of my nose in a practical hint:

Let us suppose, then, that I have now before me on this table a collection of drawings containing an original work by each one of you. I tilt back in my chair and examine them leisurely one by one, meanwhile keeping my thoughts entirely to myself.

Being known by your works, it is of course the man that I hold in my hand in each case and look secretly into.

How, now, do you suppose I am sizing you up? What, now, do you suppose I am thinking, in each case? What, do you think, is my estimate of your experiences and your faculties?

Do I understand that my poetic web has caught your practical fly?

### How Shall We Build.\*

BY J. W. YOST, ARCHITECT.

THE architecture of a country is a material expression of the sentiments, and a measure of the culture of its people. It will be influenced by three things, their resources, their needs, and their character. Among the resources are included their financial ability, their available building materials, and their knowledge of historic and contemporary building. The needs include all the various demands for use, both of a public and private nature. The character of the people will govern the relative demands of the phonetic, the technic and the esthetic elements in the design, and will decide as to the quality of each.

So far as we now know, there never has existed a nation whose people were our equal in ability to provide materials, and to build what their fancy and their needs dictated. No people have ever begun the development of a national architecture with so thorough a knowledge of all that former ages had produced. No people have ever been favored with the ability to bring together, for the purposes of comparison, so great a fund “of sentiments left written in stone”; the world's architecture being, to us, a vast storehouse of ideas. No people have ever existed whose demands for buildings were so multi-form and various; taxing the energies of the designer to the limit of capacity, in knowledge of planning, ability of construction and skill of embellishment. But the sentiments, the tastes and the feelings of our people are not cast in the same mold. Gathered together, as many are, from different quarters of the globe; taught in all the schools of training the world affords; endowed with tastes as various as all the examples of historic art can instill; a people filled with business ambition, taking little time for thought upon matters of art; it is not to be expected that there shall soon exist a harmony of feeling which will crystallize into an architectural expression; but there are, and will continue to be, some national sentiments, which will be written in the main features of our architecture.

The individuality, the freedom and the business energy of our people are national characteristics; and the feeling is only different in degree among the different individuals and in different localities. These feelings are seen already suggested in the architecture of this day. Whatever else it may lack, it is free, business-like and strongly marked with individual preference.

A national architecture, worthy of the name, is not made to order, nor is it the production of one generation of people. It is a growth, beginning as the resources begin to exceed the absolute needs, and continuing to represent the taste and the sentiment of a people, while they continue to possess more than a livelihood.

No style which does not develop in harmony with the development of our national taste can become truly an American architecture. The fact that our building has failed to harmonize with public sentiment, accounts for the other fact that we attempt to satisfy ourselves and the public by following one style a few years, then dropping it for another; and that again changed, in a few years, for still a different line of expression.

No attempt to ingraft upon American architecture the peculiarities of any style can succeed, further than such peculiarities are the best presentation of our national feeling. Every known style has developed through generations by assimilating whatever was available, in what architecture was then known, and filling the lacks by the invention, and the genius of the period.

\* Paper read before the Fourth Annual Convention of the Association of Ohio Architects at Dayton, August 15, 1889.

As historic work has been the basis and the inspiration of design in all times and countries, even when years were allowed in which to prepare a single design, it must remain true of this age, when a few hours, or days at most, can be allowed in which to determine the main features of an important building. As all historic art has been developed from what was then history, adding peculiarities peculiar to the time, so must ours be developed, by adapting whatever has been done in the best way it can be done, and supplying by invention when something better can be made than can be found.

The architectural design of no nation has stood still at any given point longer than was necessary to erect a single building, and in many cases the style changed materially from the beginning to the ending of the structure.

We sometimes think of Classic architecture as being fixed in its proportions and elements of design, but whoever thinks that Classic work is summed up in a post and lintel—a building of rectangular form without variation from some list of fixed proportions which, by the way, were invented a thousand years after Classic architecture has been superseded, has not quite learned the a, b, c's of Classic design. He has the “letter which killeth,” instead of “the spirit which giveth life.”

We are apt to speak of historic styles of architecture as though the name was a definite term—as though they were created at some particular period—listed for a given time, and were followed by another, which suddenly came into use. But this is not their history. No two important buildings anywhere, so far as I now remember, are the exact counterpart of each other. Even the Greek was divided into its orders, and neither of the orders was good architecture to those who used the others. To the Ionians, Doric was clumsy and Corinthian gaudy and in bad taste, nor has the architecture of any age or country been quite satisfactory to the people who use any other.

The complaint of the mixing of architectural styles—the charge of variation from the historic design—may be freely admitted to be true. It constitutes, in itself, no offense.

No building ever produced would have been pure architecture in the eyes of any preceding age. Whatever in it was novelty would have been regarded as an innovation and in bad taste.

The complaint that when we vary from historic precedent we will have no suitable name for our architecture—will not be able to call it Doric or Romanesque or Saracenic, or by some other well-known name, is a complaint that means nothing. No style ever produced had any name until the title was given afterward.

Had anyone asked the architect of the Parthenon what style he was building in, or had anyone called upon Waynflete, as the Cathedral of Winchester rose above the ground, and asked him what style he was building it in, what would have been the answers? The work of neither one could be named by any historic title. So that if we are able at this time to say whether our designs are Romanesque, Syrian, or Byzantine, it constitutes no reason why the design may not be good, but if it were exactly in imitation of the art of a thousand or two thousand years ago that would necessarily render it objectionable.

To attempt to make a building, erected for modern uses, in this country, look as though it had been built by the Greeks or Romans two thousand years ago is folly. A man who complains of a design because it uses some of the elements of Greek or Gothic, without using all of them, and because it uses some elements the Greeks or Medieval architects did not use, might with equal propriety have condemned the design for the Parthenon because it was not a counterpart of the cave of Ben Hassan.

But if all this be true what is our lesson? Are we to take up some historic style and use it as the basis of our work? If so which one, and how shall we modify it? In what direction shall it be changed? Will it not be bad architecture when a design contains features taken from the Greek, the Hindoo and the Norman? Can the elements taken from the styles which are at apparent total variance be brought together into a harmonious combination? I answer the question by referring to the history of the past and calling attention to the fact that when closely examined all styles possess some elements in common. From the earliest, each succeeding style copied some things, either literally or with a modification.

For instance, we find no Corinthian columns in Gothic architecture, but we find columns with every element of the Corinthian column that could be adapted to the spirit of the Gothic style. This is our lesson, that we shall do the best we can from all that we know. Be independent enough to use our knowledge of history and historic work, combined with whatever we can invent, beautifying each production to the limit of our ability, serving each purpose of the building as best we are able, and letting the name for our architecture be assigned by future generations.

### Sketching on the Continent.

AN extract from a private letter from F. H. Mullay, a member of the Chicago Architectural Sketch Club, now enjoying a bicycle tour in Europe, to Mr. W. G. Williamson, is worth publishing, as it gives a fair idea of the difficulties met with, as well as the enjoyment experienced by traversing the byways of the continent on a wheel. Mr. Mullay, writing from Cologne, says:

“I left Paris after a stay of three weeks, of excursions, sight-seeing and trying to draw, and, taking my wheel and a small sachel, made across the country, stopping a few days here and there; Meaux, Chateau-Thierry, Dormans, Rheims, Verdun, Metz, Luxembourg, Trier on the Moselle, Coblenz, Cologne, and before you get this letter I'll be in Milan, Italy, going up the Rhine. I was only arrested four times in France, stopped from drawing several times, twice did I have the populace after me and a *garde republique* taking me through the streets. Twice was I in the merciful hands of



the soldiers who could not read an American passport. When I reached *Deutsches Reich* I was all right; they never bothered me for a pass when I took to beer.

"Oh but 'tis lovely cycling down the Moselle! The days were cool, sometimes the sun bright; pretty roads, lined with trees mostly; the rocks—great hills to right and left; the blue water, and every now and then the quaint villages, old, odd, yet new and alive. But Cologne! here's your bridge of boats, and railroad bridge and the great Domkirche which you may see for miles around. St. Ursula's, filled with the bones of her virgin martyrs; the Church of the Apostles; the museum; the city hall, or Rath-Haus; many other interesting churches, buildings, towers, narrow, winding little streets, high gabled roofs, and many wide and handsome streets with elegant residences like those of New York or Chicago. 'And the Rhine flows at the foot of the garden.' But the cathedral is great, well kept, and the services and appointments round about are in keeping. The sound of the great bells seems lost as if far off in the vast forest of pinnacles and buttresses. The statues from the doorway tell the history of the church—her officers, privates, kings, queens, who have fought the fight and kept the faith of the church militant. They all hold their instrument of identification, martyrdom, palm of the elect, costume of office or some other method to teach by their example to the men of today. There they stand in the center aisle, active still from their fluted columns.

"On one side you may see the thirteenth century glass; on the other the best and most beautiful modern. See those given by Ludovico I, king of Bavaria, splendid in design and brilliant in color. Walk around them and study them. One does not feel lonesome in this vast edifice. The carving is fine and equally elegant, and just enough of it internally and externally. Of all those I have seen this church is complete, more in its own style, without mixture or late addition. It does not seem to me to be as high as the figures put down. But this is a church of churches, and the Germans have a thing of which they may well be proud.

"I have watched some buildings going up here. The men carry, not a hod, but a board around the neck on both shoulders, twenty-four bricks larger and heavier than ours, going up the ladder side-wise. Their joists are not always trimmed in market sizes like ours, they are barely squared, a trifle rough, sticks across, nailed, cement, then tile. All along the Rhine valley I have noticed a white brick composition, something like our dry pressed process; of these they build their houses, fences, chimneys, cornices, etc. Their ironwork, wrought, is used in profusion; elegant designs, showing admirable workmanship; gates, window screens, fences, railings. Sanitation has not made the progress as in our country; some of their ways are laughable. All modern improvements does not mean what it does in America. The country is full of interesting objects, too many for a short letter.

"If I stop this letter short here, believe me you will hear more when I get home. Making finished drawings is out of the question, merely sketches and photos. There is too much distracting stuff here for three or four short months." \* \* \*

### Rules and Regulations Governing the Drainage and Plumbing of New Buildings.\*

THE drain, soil and waste pipes, and the traps must, if practicable, be exposed to view for ready inspection at all times, and for convenience in repairing. When necessarily placed within partitions or in recesses of walls, soil and waste pipes must be covered with woodwork so fastened with screws as to be readily removed. In no case shall they be absolutely inaccessible unless so placed in accordance with a permit issued by the board of health.

Foot connection of soil or waste pipes shall be carried to the level of the sewer and a  $\frac{1}{4}$  or  $\frac{1}{8}$  inch long iron bend used. A metallic cap, such as is in general use, may be used to complete the construction.

The size of supply pipe must in every case be ample for the purpose.

Water-closets—The use of pan closets is prohibited.

No brick, sheet-metal, earthenware, or chimney flue shall be used as a sewer-ventilator, nor to ventilate any trap, drain, soil or waste pipe.

Every vertical soil and main waste pipe must be of iron, and where it receives the discharge of fixtures on two or more floors, it must extend at least two feet above the highest part of the roof or coping or light shaft louvers, and have a diameter above the roof at least one inch greater than that of the pipe proper; but in no case shall it be less than 4 inches in diameter above the roof. No cap or cowl shall be affixed to the top of such ventilation pipe, but in tenement houses, a strong wire basket shall be provided and securely fastened thereto in every case, to cover the mouth of it.

Soil, waste and vent pipes in an extension must be extended above the roof of the main building, when otherwise they would open within twenty feet of the windows of the main house or the adjoining house.

Horizontal soil and waste pipes are prohibited.

The least diameter of soil-pipe permitted is four inches. A vertical waste-pipe into which a line of kitchen sinks discharges must be at least 3 inches in diameter if receiving the waste of five or more sinks, and shall have 2-inch branches.

Where lead pipe is used to connect fixtures with vertical soil or waste pipes, or to connect traps with vertical vent-pipes, it must not be lighter than extra light pipe.

There shall be no traps on main vertical soil or waste pipes.

\*Issued by the department of health, city of Chicago.

All iron pipes must be sound, free from holes or cracks, and of the grade known in commerce as extra heavy. The following weights per lineal foot will be accepted as standards:

2 inches,	5½	pounds	per lineal foot.
3	9½	"	"
4	13	"	"
5	17	"	"
6	20	"	"
7	27	"	"
8	33½	"	"
10	45	"	"
12	54	"	"

All fittings used in connection with such pipe shall correspond with it in weight and quality. Tar-coated cast-iron pipe shall be used.

When required by an inspector from the board of health, plumbing work must be tested with the peppermint test, or by other approved methods, such test to be made by the plumber in the presence of the inspector. Defective pipes discovered must be removed and replaced by sound pipes, and all defective joints made tight, and every part of the work in which defects are found be made to conform to these rules and regulations.

All joints in iron drain-pipes, soil-pipes and waste-pipes must be so filled with oakum and lead and hand-calked as to make them gas-tight. The amount of lead used to a calked joint shall be not less than 12 ounces to each inch diameter of the pipe so connected.

All connections of lead with iron pipes must be made with a brass sleeve or ferrule of the same size as the lead pipe, put in the hub of the branch of the iron pipe and calked with lead. The lead pipe must be attached to the ferrule by a wiped or overcast joint.

All connections of lead waste and vent pipes shall be made by means of wiped joints.

Every water-closet, urinal, sink, basin, washtray, bath, and every tub or set of tubs and hydrant waste-pipe, must be separately and effectively trapped; except where a sink and washtubs immediately adjoin each other, in which case the waste-pipe from the tubs may be connected with the inlet side of the sink trap. In such a case the tub waste-pipe is not required to be separately trapped. Urinal platforms, if connected to drain-pipes, must also be properly trapped.

Traps must be placed as near the fixtures as practicable, and in no case shall a trap be more than two feet from the fixture.

All waste-pipes from fixtures other than water-closets must be provided at the outlet of such fixtures with strong metallic strainers to exclude from such waste-pipes all substances likely to obstruct them.

In no case shall the waste from a bathtub or other fixture be connected with a water-closet trap.

Traps must be protected from siphonage, and the waste-pipe leading from them ventilated by a special air pipe, in no case less than 2 inches in diameter for water-closet traps, and 1½ inch for other traps. Except in private dwellings, the vertical vent-pipes for traps of water-closets in buildings more than four-stories in height must be at least 3 inches in diameter, with 2-inch branches to each trap, and for traps of other fixtures not less than 2 inches in diameter, with branches 1½ inches in diameter, unless the trap is smaller, in which case the diameter of the branch vent-pipe must be at least equal to the diameter of the trap. In all cases main vertical vent-pipes must be of cast or wrought iron.

Vent pipes must extend 2 feet above the highest part of the roof or coping, or light shaft louvers, the extension to be not less than 4 inches in diameter to avoid obstruction from frost, except in cases where the use of smaller pipes is permitted by the board of health. They may be combined by branching together those which serve several traps. These vent pipes must always have a continuous slope to avoid collecting water by condensation.

No trap vent-pipe shall be used as a waste or soil pipe.

Overflow pipes from fixtures must, in each case, be connected on the inlet side of the trap.

Every safe under a wash-basin, bath, urinal, water-closet or other fixture must be drained by a special pipe not directly connected with any soil-pipe, waste-pipe, drain or sewer, but discharging into an open sink, upon the cellar floor or outside the house. The outlets of such pipes should be covered by flat valves.

The drain-pipe from refrigerators shall not be directly connected with the soil or waste pipe, or with the drain or sewer, or discharge upon the ground; it must discharge into an open and water supplied sink. Such waste-pipes must be so arranged as to admit of frequent flushing, and must be as short as possible, and disconnected from the refrigerator. In tenement houses it must be ventilated above the roof. Covering the outlet by means of a flap valve is recommended.

The sediment pipe from kitchen boilers must be connected on the inlet side of the sink trap.

Water-closets must never be placed in an unventilated room or compartment. In every case the compartment must open to the outer air or be ventilated by means of a shaft or air duct. All water-closets within the house must be supplied with water from special tanks or cisterns, the water of which is not used for any other purpose. Interior water-closets must never be supplied directly from the city supply pipes. Except in tenement houses, a group of closets may be supplied from one tank, but water-closets on different floors are not permitted to be flushed from one tank. In tenement houses there must be a separate cistern for each water-closet and one water-closet must be provided for each two families.

The overflow pipes from water-closet cisterns may discharge into an open sink or where its discharge will attract attention and indicate that waste of water is occurring, but not into the soil or waste pipe, nor into the drain or sewer. When the pressure of the city is



not sufficient to supply these cisterns, adequate pumps must be provided.

The valves of cisterns must be so fitted and adjusted as to prevent wasting of water, especially where cisterns are supplied from a tank on the roof.

Water-closets, when placed in the yard, must be separately trapped and so arranged as to be conveniently and adequately flushed, and their water supply pipes and traps must be protected from freezing. The compartments for such water-closets must be ventilated by means of slatted openings in the doors and roof.

Tanks for drinking water are objectionable, but if indispensable they must never be lined with lead, galvanized iron or zinc. They should be constructed of iron, or wood lined with tinned and planished copper, or wood alone. The overflow should discharge upon the roof, or be trapped and discharge into an open sink, but never into any soil or waste pipe or water-closet trap, nor into the drain or sewer. Discharge pipes from such tanks must not deliver into any sewer connected soil or waste pipe.

Rainwater leaders must never be used as soil, waste or vent pipes; nor shall any soil, waste or vent pipe be used as a leader.

When within the house, the leader must be of cast-iron, with leaded joints, or of copper, with soldered joints. When outside of the house, and connected with the house-drain, it must, if of sheet metal with slip joints, be trapped beneath the ground or just inside of the wall, the trap being arranged so as to prevent freezing. In every case where a leader opens near a window or a light shaft, it must be properly trapped at its base. The joint between a cast-iron leader and the roof must be made gas and water tight by means of a brass ferrule and lead or copper pipe, properly connected.

No steam exhaust, blow-off or drip-pipe shall connect with the sewer or with any house-drain, soil-pipe or waste-pipe. Such pipes must discharge into a tank or condenser, from which a suitable outlet to the house-sewer may be provided.

Yards and areas, and open light courts, must always be properly graded, cemented, flagged or well paved and properly drained; when the drain is connected with the house-drain it must be effectively trapped. Front area drains must, when practicable, be connected with the house-drain inside of the running trap, if one is used.

Cellar and foundation walls must, where possible, be rendered impervious to dampness, and the use of asphaltum or coal-tar pitch, in addition to hydraulic cement, is recommended for that purpose.

In no case will the general privy accommodations of a tenement or lodging house be allowed in the cellar or basement.

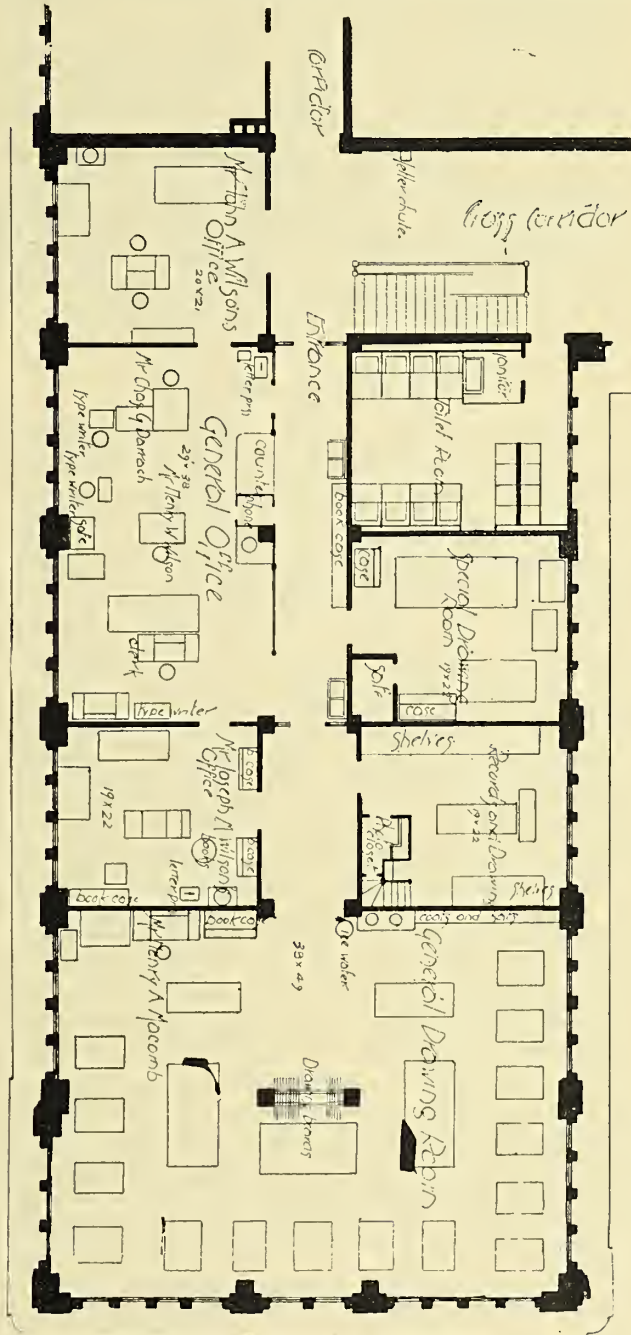
Wooden washtubs and sinks are prohibited inside of buildings; they shall be of non-absorbent material.

Our Illustrations.

- Residence at Rochester, N. Y.; Otto Block, architect.
- Design for office building; Mason & Rice, architects, Detroit, Mich.
- Ranch house for Mr. C. E. Anthony; Wilson, Marble & Lamson, architects, Chicago.
- Residence of Dr. B. St. J. Fry, St. Louis, Mo.; C. C. Hellmers, Jr., architect; cost \$5,500.
- Tenement block, Minneapolis, Minn., for Mr. Henry W. James, of Eau Claire, Wis.; G. W. & F. D. Orff, architects, Minneapolis. To be built of St. Louis red pressed brick with Duluth brownstone trimmings. Entire first floor to be finished in oak, and second and third floors in natural pine; cost \$52,000. Foundations under way.
- Trinity Episcopal church, Michigan City, Ind.; Henry F. Starbuck, architect, Chicago. This building is built of Bedford stone with full rock face. The interior is finished with open timber roof, and the furniture and fittings are of red oak. The auditorium is 50 by 70 feet, and will seat five hundred. The church will cost, complete, \$25,000.
- Residence at Grape Creek, Ill., for Mr. Joseph Fairhall; Irving K. Pond and Allen B. Pond, architects. Built of brick, made by the Grape Creek Clay Works; brick up to sill course, at first story windows is a white paving brick, the body of the house above this line is red brick and the trimming of the same; brick burned to a bluish tone; cost \$10,000.
- Office building for Mr. C. C. Heisen, corner Dearborn street and Fourth avenue, Chicago; J. M. Van Osdel & Co., architects. Frontage on Dearborn street, 73 feet, on Fourth avenue, 67 feet; twelve stories high. First three stories of Dearborn street front to be of buff Bedford stone; above this to be of gray Anderson brick with Bedford stone trimmings; bays to be of brick, and to be topped with copper. Fourth avenue front to have first two stories of iron, and all the rest brick with stone trimmings. The entire building is to be fireproof. The building is to be equipped with three elevators, steam heat, electric light, and all the appointments of a first-class modern office building.
- PHOTOGRAVURE PLATES.
- (Issued only to subscribers for the Photogravure edition.)
- Residence at Denver, Colo.; A. M. Stuckert, architect.
- Case School Gymnasium, Cleveland, Ohio; C. O. Arey, architect.
- Business block, Baltimore, Md.; Baldwin & Pennington, architects.
- The Drexel Building, Philadelphia, Pa.; Wilson Bros. & Co., architects.
- The Lennox Apartment House, Cleveland, Ohio; C. F. Schweinfurth, architect.
- Western Saving Fund Society Building, Philadelphia, Pa.; James H. Windrim, architect.
- Residence for G. W. Stockly, Euclid avenue, Cleveland, Ohio; Levi T. Scofield, architect.

Architectural Offices of Wilson Brothers & Co., Philadelphia.

THE offices, of which sketch plan is given, are situated in the tenth story of the Drexel Building, illustrated by photogravure in this number. They are located in the southwest corner, where they overlook the Independence and Washington Squares, and get the benefit of all the summer breezes. The entrance door is at the head of the staircase on main corridor, about fifty feet from the elevators and half that distance from door to toilet room. The general office is divided by a railing extending the whole length of the room, with a gate at either end, the inclosed space containing the desks of two members of the firm and the clerks, typewriters and stenographers,



PLAN OF OFFICES OF WILSON BROTHERS & CO., DREXEL BUILDING, PHILADELPHIA.

the remainder forming a lobby for the public and giving access to the main drawing room, room for records, blue prints, photographs, etc., and a special drawing room.

The private offices of the two senior members of the firm open on the general office, one at each end.

The main drawing room is a fine apartment, with windows on three sides, giving abundance of light and air, and space for a large force of draftsmen.

The blue-printing department is very complete, consisting of a printing room on the roof, with three large frames, connected by dumb waiters with the washing and drying room in loft below, and with room for records and drawings, shown on plan. The room also contains a dark closet for photographic work, fitted with every convenience.

The whole suite of rooms is thoroughly heated and ventilated, and lighted by incandescent electric lamps suspended over desks and drawing boards.



### The National Exhibit of Drawings.

THE Cincinnati Architectural Club issue the following circular letter regarding the national exhibition of architectural drawings and sketches:

To Our Contributors:

CINCINNATI, September 27, 1889.  
The publication of our illustrated catalogue entails much work upon the committee having it in charge. It is the intention of this committee to publish an artistic catalogue, and to do this, it is of paramount importance that all catalogue illustrations be received promptly. The committee therefore requests that they be expressed as soon as possible, to John Zettel, Secretary, 227 Main street. The latest date on which these designs can be received is October 19.

It is also respectfully urged that the schedules previously sent, be filled and returned at an early date.

The letter forming a part of this circular is indicative of the interest taken by our people here, and its contents are heartily commended to you.

In closing, attention is called to the following important instructions, namely, all contributions must be expressed to arrive here not later than November 10. All catalogue illustrations must be here by October 19.

Lack of time prevents a personal letter, hence this circular.

Again soliciting your cooperation,

Yours respectfully,  
G. W. E. FIELD, President, C. A. C.

A special prize has been offered for the best designs in hardware by the Wayne Hardware Company of Cincinnati. Their offer is as follows:

CINCINNATI, Ohio, September 26, 1889.

John Zettel, Esq., Secretary Cincinnati Architectural Club:

Present our compliments to the club, and say, to interest all concerned, we beg to offer as a special premium a silver medal as an award for best design and drawings, complete, of the hardware necessary to complete a door, namely, hinges, 5 by 5, mortice lock, knobs and combined escutcheons. Also, such hardware as is necessary to complete a window, with inside blinds, namely, hinges 1½ by 2, shutter knob and bar, sash, lock and flush or rim lift. The design to be Romanesque. The prize drawing to be ours after such competition and award is made in accordance with judges' decision.

Respectfully,  
WAYNE HARDWARE COMPANY,  
C. E. STEWART, Secretary.

### The Modern Fireplace.

IT is a feature of modern home building of the better class of houses to build in them handsomely carved and tiled mantels, with ornamental grates, the idea being for decoration as much as for comfort. Undoubtedly a mantel with a grate is an ornament to any home, but to be seen at the best advantage the grate needs to have a cheery fire in it with the household gathered about it. While it is admitted that there is no heating apparatus to be compared to a grate or fireplace with its ruddy fire for cheerfulness, nor any that can put in a claim for the same degree of wholesomeness, yet it has grown into such disfavor as to be rarely used, chiefly on account of the contracted area of heat. As the saying is, "Your back freezes while your face roasts," with a grate fire. That is a fact beyond controversy with the ordinary grate, and can be readily accounted for when it is taken into consideration that a grate fire exhausts or removes the air in a room from four to eight times every hour, according to the degree of combustion, which air must necessarily be replaced by a supply drawn through the crevices and cracks in the doors and windows, which, in freezing weather, very naturally would chill the room, except in the immediate vicinity of the fire. If there could be a more universal radiation of heat in a room from a grate fire there is hardly a doubt but such a source of heat would be the most generally utilized, for the reasons above given, namely, cheerfulness and wholesomeness. Appreciating this fact there have been many attempts made to overcome the objectionable features of the common grate by inventors, some of which have been to a certain extent successful, but none apparently have struck the philosophy of the cause more nearly than the inventor of what is known as "The Jackson ventilating grate," which, to judge from its construction and the reports of investigating experts and the tests of those who have them in practical use, leaves little or nothing more to be desired in this direction. It matters not what kind of fuel is used, whether wood, bituminous or anthracite coal, or gas, the result is the same—heat equally distributed through the room and at a great reduction in the consumption of fuel. A prominent feature of this grate is that it derives its supply of air for combustion from without the building, and thus, instead of drawing frigid air into the room through door and window cracks and crevices, discharges that drawn from without, over and above that necessary for combustion, into the room, heated as by a furnace, and, indeed, it can be so arranged that it will supply a room above with heated air without robbing the grated room of any of its genial flow of warmth. It would seem that if the merits of this particular construction of grate was more generally known, both by architects and owners of houses, there would be no more mantels and grates set for ornamental purposes, but for the real comfort that is stored in a cheery grate fire. There are other meritorious features connected with this particular make of grate that add to its general excellence, aside from those named, but the object of this article being more to dispel an erroneous idea from the public mind in regard to the utilizing of this unapproachable old-time house warmer, the interested inquirer will have to learn, by addressing the manufacturers, Edwin A. Jackson & Bro., New York, what they are.

### Association Notes.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The regular meeting of October 7 was devoted to a paper upon "The Artistic Use of the Imagination," by Architect Louis H. Sullivan, which is printed on page 38. In the discussion which followed, Mr. Sullivan showed how, without imagination, no student could become an architect. The subtle arguments of the paper were demonstrated by broad examples, the speaker saying that the draftsman often drew too well and understood too ill. The discussion clearly showed that Mr. Sullivan's theories were based upon the most practical common

sense, and his remarks made a deep impression upon the club members. The meeting was the largest in attendance of the year, and a sign could have been placed at the door of "standing room only."

MEMPHIS, TENNESSEE, CARPENTERS' AND BUILDERS' ASSOCIATION.

The builders of Memphis, Tennessee, have formed a builders' exchange, with about sixty members, including six architects. The officers are John P. Mahoney, president; L. Pritchard, vice-president; D. J. McComb, secretary and treasurer. The headquarters is in the Planters' Insurance Building.

WESTERN NEW YORK STATE ASSOCIATION OF ARCHITECTS.

The third annual meeting of the Western New York State Association was held in Syracuse, at the Leland Hotel, October 8 and 9. The officers elected for the ensuing year are J. G. Cutler, of Rochester, president; W. W. Carlin, of Buffalo, secretary; George W. Baxter, of Syracuse, treasurer; J. H. Kirby, of Syracuse, first vice-president; J. P. Johnston, of Ogdensburg, second vice-president; J. H. Pierce, of Elmira, and F. H. Gouge, of Utica, with the officers, executive committee.

THE JOINT CONVENTION A. I. A. AND W. A. A.

The following preliminary notice has been issued by the Joint Committee of Arrangements:

The joint convention of the American Institute of Architects and Western Association of Architects will be held in Cincinnati, opening on Wednesday, November 20 next, at 10 A.M.

The annual reports to and of each organization will be read, and the constitution and by-laws recommended for the reorganized Institute by the Joint Committee on Consolidation, appointed by the two bodies, will be submitted for the final action necessary to consummate unification.

This will be followed by the reading and discussion of professional papers. An exhibition of architectural illustrations, under the direction of the Cincinnati Architectural Club, will occur simultaneously with the convention, and a reception will be given by the club on the evening preceding the opening of the convention, namely, Tuesday, November 19, to which all the members of both existing organizations are cordially invited.

Before the close of the convention opportunities will be afforded for the inspection of the prominent and interesting structures of the city, finished or in process of erection.

Members of either existing organization having communications or papers of interest to the profession which they propose to submit to the joint convention, should forward them to the appropriate secretary before November 1 ensuing.

Full particulars will be forwarded, in due course, to the members, alike of the existing Western Association of Architects and American Institute of Architects.

E. H. KENDALL, CHAS. CRAPSEY, N. S. PATTON, Secretary W. A. A., 44 Montauk Block, Chicago. A. J. BLOOR, Secretary A. I. A., 18 Broadway, New York.	} Joint Committee of Arrangements.
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September 19, 1889.

THE ARCHITECTURAL LEAGUE OF NEW YORK.

The first regular autumn meeting and dinner of the league was held at Morello's restaurant, No. 8 West Twenty-ninth street, on Monday, October 7, at 6:30 P.M.

The evening was devoted to a general discussion of the American Fine Arts Building, and to the election of a jury for the fifth annual exhibition.

The Committee on Current Work announced that after 4 P.M. on the day of the meeting the De Vinne Press Building, through the courtesy of Theodore L. De Vinne & Co., would be open for inspection to the members of the league, and the members were conducted through the building by Mr. Willard, of Messrs. Babb, Cook & Willard.

### Mosaics.

THE firm of Willcox & Johnston, architects, St. Paul, Minn., has been dissolved, Mr. Clarence H. Johnston retaining the present offices in the German-American Bank Building.

SECRETARY N. S. PATTON, of the Western Association of Architects, has issued his report of the fifth annual convention, held in Chicago in November, 1888. It contains 108 pages, and is similar in general make-up to that of the preceding year. Beside the verbatim report of the convention a revised list of members and the officers and members of the different state associations is given. There are 341 regular and seven honorary members. This does not include the large number which belong to state associations, and are in this way affiliated with the national body.

Mr. Frederick Keppler, a prominent member of the Chicago Architectural Sketch Club, has been exercising his designing tendencies in a Kansas town. His ability to form and carry out plans is indicated by the announcement of his marriage in the First Presbyterian Church of Leavenworth, Kansas, on October 10, to Miss Elizabeth Neely, niece of Doctor and Mrs. S. F. Neely, of that city. While not a trained draftsman, it is quite probable that on this occasion Mrs. Keppler will draw better than her husband. Mr. and Mrs. Keppler will receive the congratulations of a host of friends upon their arrival in Chicago.

THE lumber interests of California, Oregon and Washington receive a unique presentation in a special number of the *Lumberman*, of Chicago, which bears date of September 28. It contains a list of all the operators in the three states with complete details as to their lines of business and equipment, much special matter of a technical character, statistics and illustrated articles which vividly portray the timber and logging and lumbering methods in those greatest forests of the continent which have their habitat west of the Cascades. It is embellished with a handsomely engraved cover, and contains one hundred and forty pages. The publication is of interest to everyone, but no one interested in the lumber business should fail to read it. The price of this artistic as well as practical work is 50 cents.



## Building Outlook.

OFFICE OF THE INLAND ARCHITECT, }  
CHICAGO, ILL., October 10, 1889. }

Builders and architects in all sections of the country from which direct advices have been received, speak of the current year as one of the best in their history. Those who have ventured to express an opinion as to future probabilities, especially with reference to 1890, think, and are able to assign a number of good reasons for their belief, that that year will be a repetition of, and in some respects an improvement upon this one. The improvement will be in an increased volume of money, revival of railway building activity, and a heavy demand for house and shop building, and for manufactured products and machinery generally throughout the West, Southwest and Northwest regions especially. In addition to the expansion of business west of the Mississippi, those in the far East who are in position to know, expect a general improvement in manufacturing capacity and increase in the investments of capital. The abundance of money is the fundamental feature of the improving tendency. No doubt the inroads of foreign capital will continue to exercise a beneficial effect upon American business affairs. It is quite safe to say that railroad building will be prosecuted more actively next year than it has been this year, and that more car and locomotive building will be done, as nearly all the railway systems are short of rolling stock, and not a few are in need of additional motive power.

Iron and steel markets in all sections of the country are crowded with business and prices are moving upward. The advance during the past month on steel blooms is between \$5 and \$6, and the same on Bessemer pig. This advance is as remarkable as that of 1884, and indicates an era of better prices in all lines caused by a stronger demand. The lumber manufacturers have done a good year's business, and are looking forward to a busy winter. Manufacturers generally, and especially those engaged in the production of machinery used in the agricultural regions, are doing a good business, and have excellent winter and spring prospects ahead. Money is abundant in financial circles east, and there is no reason for anticipating any scarcity. Builders, architects, investors and promoters of enterprises may take fresh courage, without danger of disappointment. While it would be rash to positively assert that extraordinary prosperity awaits the country, it is safe to say that there is greater activity, and better margins ahead. Houses for persons of moderate means are not in sufficient supply in the cities, towns and villages of the country, and a great deal of capital is being attracted into this avenue of investment, by the very liberal returns realized in the shape of rents, and the ready sales effected on satisfactory terms.

## Synopsis of Building News.

**Atlanta, Ga.**—Architect L. B. Wheeler has prepared plans for the Confederate Soldiers' Home. The main building will be two stories high with an area of 240 by 75 feet. It will contain offices, reception rooms, galleries, and parlors, dining room and fifty sleeping rooms; estimated cost from \$25,000 to \$30,000.

Architects Bruce & Morgan have plans under way for a five-story office building for M. C. Kiser.

**Augusta, Ga.**—Architect L. F. Goodrich has made the plans for the reconstruction of the burned Augusta Orphan Asylum. It will be five stories, 165 by 50 feet.

**Benton Harbor, Mich.**—Architects McKellar & Son have made plans for a two-story school building, 72 by 73 feet; common, pressed and ornamental brick with stone trimmings. Will have four gables and a tower; cost \$12,000.

**Buffalo, N. Y.**—Architects R. A. & L. Bethune have made plans for a \$100,000 high school building, to be erected by the school board of Lockport, N. Y.

**Chicago, Ill.**—Architect A. M. F. Colton: For C. L. Brown, three-story and basement flat building; pressed brick, with stone trimmings; cost \$6,000.

Architect J. Speyer: For H. Sontag, at Evanston, two-story basement and attic residence; frame construction, hardwood and carved antique oak finish, plate and stained glass, steam heat, electric work, etc.; cost \$15,000. For H. W. Whitchurch, three-story and basement flat building, 42 by 44 feet, brick and stone; cost \$8,000.

Architect F. B. Shelton: For Mrs. J. T. Allen, three-story flat building, 22 by 80 feet; pressed brick and stone, copper bays, hardwood finish and modern improvements; cost \$10,000. For same party, two-story flat building, 72 by 55 feet; pressed brick and stone; cost \$12,000. For S. Schwarzhild, two-story flat building, 22 by 60 feet; brick and stone; cost \$5,000. For E. D. Mullane, two-story residence, 25 by 55 feet; brick and stone; cost \$6,500.

Architect C. E. Guiner: Three-story and basement residence, 48 by 60 feet; pressed brick and Bedford stone front; cost \$12,000.

Architects Pond & Pond: For J. A. Springer, block of six three-story and basement houses; brick, slate and composition roofs, hardwood finish, sanitary improvements, furnace heat; cost \$25,000. For D. V. C. Vaughn, hunting-lodge at Old Mission, Mich. For a six-story building at Kansas City, Mo. For Benecette Williams at Western Springs, three-story brick and frame residence.

Architect M. L. Beers: Preparing plans for a two-story and basement eight-room schoolhouse, to be built at Morgan Park, in the Washington Heights district. Will be of pressed brick and fine terra-cotta trimmings, have galvanized iron cornice and slate roof, and all modern school conveniences. Only first story will be finished at present; probable cost \$20,000.

Architect M. E. Bell has made plans for P. F. Munger, two-story basement and attic residence; Colonial style, hardwood finish, steam heat and modern sanitary conveniences; cost \$12,000. For J. P. Smith, two-story and basement residence, 34 by 52 feet; all stone, slate roof, steam heat, hardwood finish and modern improvements; cost \$23,000.

Architect J. J. Kuhn has prepared plans: Stone and frame residence, 45 by 54 feet, at Englewood, cost \$6,000; two-story, basement and attic residence, Sixty-first near Grand boulevard, hardwood finish, hot water heat and all modern improvements, cost \$22,000; two-story, basement and attic residence, 45 by 50 feet, same locality, same character, cost \$18,000; two-story, basement and attic residence, same locality, similar to above, cost \$12,000.

Architect J. A. Bongard: For Frank Fuller, three-story flat building, 25 by 54 feet; pressed brick and Bedford stone front; cost \$6,500.

Architect A. M. F. Colton: For C. C. Tripp, residence at Kenwood; cost \$10,000. Also a residence on Dearborn avenue; cost \$15,000.

Architects Ostling Bros.: For N. Cronholm, two dwellings; cost \$8,000. For A. Almert, three-story flat building; cost \$12,000. For A. Schonbeck, three-story flat building; cost \$15,000.

Architect J. B. Townsend: Plans for a church at Englewood, 60 by 120 feet; Norman style, to be constructed of boulders; estimated cost \$30,000.

Architects Holabird & Roche: For C. T. Boynton, Evanston, residence; cost \$20,000. For Dr. E. H. Webster, Evanston, residence; cost \$10,000. Making plans for St. Mark's Church, Evanston; cost \$30,000.

Architect H. Rehbold: For J. Garrick, three-story flat building; pressed brick and stone; cost \$5,000.

Architect L. G. Halberg: For A. Weaver, four-story and basement apartment building, 25 by 50 feet; rock-faced stone and pressed brick front; cost \$8,000. For S. A. Freeman, three-story apartment building, 45 by 80 feet; pressed brick with stone trimmings; cost \$18,000. For Mrs. Grace D. Porter, three-story and basement residence, 25 by 40 feet; pressed brick and stone front, hardwood

finish; cost about \$6,000; taking figures. For F. W. Stanley, barn, 25 by 40 feet; brownstone on two sides, balance pressed brick, Georgia pine finish, asphalt floor; cost \$6,000. For Miss Mary A. Dewey, two-story and basement flat building, 25 by 50 feet; cost \$5,000. Preparing plans for C. T. Wheeler *et al.*, six-story and basement block, 185 feet on Madison street and 200 feet on Market street; first story rock-faced stone with large arched entrances on both streets, other stories pressed brick with stone and terra-cotta trimmings. The first floor will be designed for stores, the others for offices and manufacturers' sample rooms. The river front will be fitted for warehouses. The building will have passenger and freight elevators, steam heat, electric lighting and all latest modern conveniences; estimated cost \$250,000.

Architects Edbrook & Burnham: For R. W. George, store and flat building, 24 by 137 feet; cost \$12,000. For E. Simons, making plans for store, hall and office building; cost \$20,000.

Architect A. Charvat: For John Hayda, three-story store and flat building, 22 by 41 feet; pressed brick, stone trimmings; cost \$5,000.

Architect J. W. Ackermann: For the proprietors of Mineral Beach Resort, Warsaw, Ind., three-story hotel building, 40 by 120 feet; frame and shingles with brick basement; cost \$10,000.

Architect I. C. Zarbell: For S. Steinger and W. Rotzchild, two two-story residences, 43 by 80 feet; carved brownstone fronts, hardwood finish, mantels, furnaces, etc.; cost \$70,000.

Architects Almqvist & Klebert: For St. Paul Evangelical Lutheran Society, Humboldt Park, church building, 36 by 60 feet; brick and stone; cost \$5,000. For W. Everett, two-story double dwelling, South Chicago, 44 by 70 feet; brick and stone front; cost \$20,000.

Architect Geo. Beaumont: For W. J. Mayer, five-story and basement store and flat building, 28 by 99 feet; pressed brick and stone; cost \$30,000.

Architect J. Warner: For J. J. Tangey, three-story flat building, 25 by 72 feet; pressed brick and stone front; cost \$12,000; contracts let.

Architect J. Duncan: For J. Denny, two-story and basement residence, 25 by 72 feet; pressed brick and stone, hardwood finish, sanitary plumbing, steam heat and modern conveniences; cost \$12,000.

Architect C. M. Palmer: For Connecticut Mutual Life Insurance Company, alterations and additions to 1426 and 1428 Wabash avenue; cost \$6,000.

Architect R. G. Pentecost: Plans for three-story flat building on Indiana avenue, brick and stone front; cost \$12,000.

Architect H. G. Starbuck: For H. G. Moore, two-story and basement dwelling, 39 by 52 feet; pressed brick, with stone and terra-cotta trimmings; cost \$5,000. For O. M. Wells & Co., four-story apartment building; cost \$100,000. For Geo. Smith, two-story residence; cost \$6,000.

Architect Clinton J. Warren: For B. R. Wells, residence; pressed brick and terra-cotta front, hardwood interior and all latest modern conveniences; cost \$40,000. For G. A. McKeever, six-story and basement store and flat building; St. Louis pressed brick and Bedford stone front, copper bays, steam heat, electric lighting, etc.; cost \$100,000.

Architects J. F. & J. P. Doerr: For J. H. Ludden, two-story and basement flat building; pressed brick and rock-faced Bedford stone; cost \$5,000.

Architect A. Fielder: For the Fourth Baptist Society, church building, 70 by 200 feet, to be erected corner of Monroe street and Ashland avenue; rock-faced stone, steam heat, electric lighting, etc.; cost \$80,000.

Architect J. H. Huber: For John Prince, two-story and basement store and flat building, 50 by 125 feet; cost \$15,000. For A. Sachs, flat building; cost \$6,000. For M. Melville, four-story and basement hotel building, 26 by 140 feet; Connecticut brownstone front, elevators, steam heat, electric lighting, etc.; cost \$25,000. For Mr. Coit, also Mr. Woodman, at Buena Park, cottages; frame on brick basements, stained glass, baths, mantels, furnace heat. For C. Steinbecker, two-story residence, 22 by 48 feet; Anderson pressed brick and terra-cotta; cost \$5,000.

Architects Beman & Parmentier: For Ocean Springs Imp. Co., Ocean Springs, Miss., four-story hotel; frame construction, elevators, steam heat, electric lighting, etc.; cost about \$175,000. For J. R. Doolittle, Groveland Park, three-story residence, 20 by 55 feet; pressed brick and stone, hardwood finish, mantels, furnace heat and modern improvements; cost \$6,000. For R. McKay, three two-story dwellings; pressed brick and stone; cost \$12,000. For the Bernritter Manf. Co., three two-story dwellings; frame on stone basement; cost \$12,000. For Frank Bennett, South Kenwood, ten two-story frame dwellings; cost \$4,000 each. For themselves, at South Kenwood, two two-story frame dwellings; cost \$12,000.

Architects Thiel & Lang: For John Johnson, three-story and basement store and flat building, 24 by 75 feet; St. Louis pressed brick and Euclid stone; cost \$7,000. For Louis Frederick, three-story and basement store and flat building, 24 by 82 feet; St. Louis pressed brick and blue Bedford stone; cost \$9,000. For E. Stopp, three-story and basement factory building; brick and stone; cost \$10,000. For Frank Dobelstein, two-story flat building; St. Louis pressed brick; cost \$5,000.

Architect W. D. Cowles: For Aug. Pollock, two-story and attic residence, 30 by 67 feet; rock-faced Bedford stone front, hardwood finish, stained and plate glass, mantels, steam heat, etc.

Architect C. H. Tabor: For C. W. Louks, two-story residence, Irving Park, St. Louis pressed brick, stone and slate; cost \$11,000. For C. C. Cassette, two-story dwelling, La Grange, frame with stone basement, stained glass, furnace heat, bathroom, etc.

Architect R. B. Williamson: For D. G. Plimister, two-story and cellar residence, pressed brick and stone, hardwood finish, mantels, furnace, etc.; cost \$5,000.

Architect W. A. Furber: For J. C. Belfield, two buildings, stone fronts, hardwood interiors; cost \$11,000.

Architect J. Woolcott: For John Gross, three-story flat building, Bedford stone front; cost \$800.

Architect I. Linderoth: For D. Keohane, three-story flat building, brick and stone; cost \$10,000. Making plans for five apartment houses, stone fronts and modern improvements, to cost \$75,000.

Architect G. Isaacson: For Thorbenon & Holby, four-story and basement flat building, St. Louis pressed brick and Bayfield brownstone; cost \$17,000.

Architect F. B. Shelton: For S. Schwarzhild, two-story flat building, pressed brick and stone; cost \$5,000. For J. T. Allen, two-story flat building, pressed brick and Bedford stone; cost \$14,000. For E. D. Mullane, two-story residence, pressed brick and stone; cost \$7,000.

Architect A. Smith: For S. R. Moore, Groveland Park, three-story and basement residence, 22½ by 77 feet, stone front, hardwood interior finish, hot water heat, latest sanitary improvements; cost \$10,000.

Architect H. D. Safford: For J. Webster, three two-story residences, 50 by 60 feet, pressed brick and stone; cost \$15,000.

Architects Bauer & Hill: For the Benedictine Bros. of Peoria, monastery, three-story and basement, 500 by 400 feet; pressed brick and stone, stained glass, steam heat, bathrooms, etc.; cost \$400,000.

Architects Lamson & Newman: Two two-story and basement dwellings to be built on Sacramento street, pressed brick with stone trimmings; cost \$5,000 each.

Architect Chas. Yeyer: For H. Meiselbar, five-story factory building, 60 by 140 feet; brick and stone, elevators, boilers, engines, etc.; cost \$60,000.

Architect H. J. Miller: For F. Campbell, two-story residence, 25 by 80 feet; stone and brick; cost \$5,000.

Architects G. Geyer & Co.: For Chas. Gross, two-story and basement residence building, rock-faced stone and pressed brick with stone trimmings, hardwood finish, steam heat, etc.; cost \$6,500.

Architect F. Swanson: For John Suransky, two-story and basement flat building, 22 by 57 feet; brick and stone front; cost \$5,000.

Architect W. A. Furber: For J. C. Belfield, two two-story dwellings, buff Bedford stone fronts, hardwood finish, mantels, stained and plate glass, furnace heat; cost \$12,000.

Architect C. C. Miller: For J. P. Ketcham Bros., two residences, brownstone fronts with cochers, slate roofs, hardwood finish, mantels, stained and plate glass, hot water heat; stable and loft; cost \$30,000.

Architect H. W. Huehl: For H. G. Peet, two-story flat building, pressed brick and stone; cost \$14,000.

Architect J. H. Thain: For J. H. Swan, alterations on residence.

Architect Geo. H. Borst: For John G. Weeks, residence at 1521 Michigan avenue, three stories, 31.6 by 60.0 feet, with two-story business premises at the rear, 38.6 by 60.0 feet; walls of front building Michigan green buff sandstone to second story window sills, Tiffany pressed brick above, red tile roof, reception room,



parlors, office, etc., on main floor of front building with corridor connecting the business premises, principal rooms finished in enamel, main hall and staircase in oak, steam heat throughout. The intention is to have the finest dress establishment west of New York; cost from \$16,000 to \$18,000.

Architect F. B. Townsend: For M. E. Church building, 50 by 100 feet, to be erected on Berwyn avenue; cost \$15,000.

Architects Flanders & Zimmerman: For Mrs. McDonald, three-story and cellar residence, Bedford stone front, hardwood interior finish, steam heat, etc.; entrance and office for Oakwood Cemetery, granite.

Architect C. H. McAfee: For C. L. Bonney, at Lawndale, two-story residence, Anderson buff Roman brick and Michigan green buff sandstone; cost \$10,000. For Chas. Novak, Lawndale, two-story residence, Collinsville pressed brick fronts, mantels, plate and stained glass, baths, etc. Making plans for four-story store and flat building, 25 by 100 feet; to cost \$16,000.

Architects Lutken & Thisslew: For J. K. Stack, Escanaba, Mich., three-story and basement store and hall building, 50 by 115 feet; pressed brick and stone; cost \$25,000. For H. H. Helleland, four-story and basement building, 22 by 70 feet; stone and pressed brick.

**Cincinnati, Ohio.**—Reported by Lawrence Mendenhall.

The falling leaves not only remind us that grand old autumn is here, but also that the building season is almost over, with all the contractors feeling reasonably satisfied. There have been comparatively few what might be called *large* contracts let this year, but our suburbs show a steady increase in residences ranging in cost from \$2,500 to \$15,000. For my part I have not allowed the devil to get my hands into mischief, for my time has been fully occupied.

On behalf of the Cincinnati club I most heartily thank your journal for the interest taken in the coming exhibition of drawings. Our citizens are fully alive to the importance of this exhibition, and, now, in addition to the prizes already offered, another silver medal has been offered by the Wayne Hardware Company of our city for the hardware designs, as per their letter printed elsewhere. The indications at the present writing are most favorable for a grand display, but let every club and draftsman in the country send contributions, as though the success of all depended upon them. We sincerely trust that some of the older architects and colorists may see fit to help also.

Architect L. Plympton reports, among other plans, one for a residence for J. L. Amberg, city, to contain ten rooms; materials to be stone, tile roof, pine finish, wood mantels, etc.; cost \$3,000.

Architect John H. Boll reports for Mr. Chas. Bare, city, a store and flat building, with brick and iron front, stone trimmings, pine finish, plumbing, slate mantels, tin roof; cost \$8,500.

Gustave W. Drach has prepared plans for the following: For the Cincinnati & Northwestern Railroad, a passenger station of frame and shingles, with slate roof, office fixtures, pine finish, etc.; cost \$4,000.

For Mrs. K. S. Loth, a brick residence. It will have pine finish, stained glass, wood mantels, laundry fixtures, etc.; cost \$4,000.

Architect W. S. Robinson has prepared plans for H. R. Hearne at Richmond, Ky. The house is to be of frame and shingles, with slate roof; contains ten rooms, and has inside blinds, stained glass, plumbing, pine finish; cost \$6,000.

Also for Mr. V. Humbrecht, of Terra Alta, Ohio, a frame dwelling of ten rooms, tin roof, inside blinds, wood mantels, etc.; cost \$4,000.

Architect S. E. Des Jardins has drawn plans for a fine residence in Memphis, Tenn., for J. Marks. It will be of brick, with slate roof, electric bells, hardwood finish, etc.; cost \$14,000.

Architect W. W. Franklin has the following to report: For W. S. Marx, Sixth and Baymiller, a frame house two and one-half stories in height; twelve rooms, pine finish, stained glass, wood mantels, slate roof, etc.; \$5,000.

Also plans for a residence for Judge J. W. Price, Avondale, Ohio; two stories high, brick and stone, stained glass, electric bells, hardwood finish, laundry fixtures, etc.; cost \$12,000.

Also for E. A. Foy, a frame residence, two stories high, ten rooms, pine finish, slate roof, plumbing, etc.; cost \$2,500.

Also for John W. Gaffney, a store and flat building; material to be stock brick, with stone trimmings, stained glass, pine finish, blinds, plumbing, grates, etc.; cost \$15,000.

Architect Thornton Fitzhugh reports: For E. H. Siefke, a frame residence of ten rooms, pine finish, slate mantels, gas, plumbing, shingle roof; cost \$3,800.

Also for W. H. Beardsley, a frame house of six rooms, pine finish, plumbing, mantels, slate roof, etc.; cost \$2,000.

Messrs. Samuel Hannaford & Sons report as follows: For S. C. Mayer, a brick residence of twelve rooms, electric bells, hardwood finish, stained glass, dumb waiter, slate roof, etc.

For the Middletown M. E. Church, a stone church edifice, with slate roof, hardwood finish, pews and chairs, organ, stained glass, etc.

First Congregational Church, of Hamilton, Ohio; stone, hardwood finish, pews and chairs, slate roof, etc.

For James O'Kane, Esq., a residence of frame, with slate roof; to contain ten rooms, and to have hardwood finish, stained glass, wood mantels, etc.

For J. Leverone, city, a brick residence of twelve rooms, hardwood finish, electric bells, stained glass, dumb waiter, etc.

**Columbus, Ohio.**—Architects J. L. Harris & Co. have prepared plans for a three-story, 32 by 100 feet, United States Hospital Building; brick and stone, metal roof, galvanized iron cornice, outside blinds, mantels, bathroom outfit, etc.; cost \$25,000.

**Davenport, Iowa.**—Architect J. W. Ross: For N. Kulen, two-story residence, 32 by 50 feet; brick and stone, wood cornice, pine and red oak finish, wood mantels, gas fixtures, common and stained glass, plumbing, etc.; cost \$4,500. For Wm. Allen, two-story residence, 37 by 55 feet; brick, inside and outside blinds, gas fixtures, plumbing, kitchen and laundry fixtures, wood mantels, common and stained glass; cost \$5,000.

**Denver, Colo.**—Architect J. J. Huddart has prepared plans for a hall building to be erected by the Odd Fellows of Greeley, Colo.; to be three stories, 50 by 100 feet; construction brick and stone.

**Dubuque, Iowa.**—Architect F. D. Hyde: For W. W. Bingham, Waterloo, Iowa, residence, frame, shingle roof, outside blinds, softwood finish, wood mantels, plumbing, bathroom outfit, gas fixtures, etc.; cost \$2,000. For M. A. Creglowe, Wisconsin, bank building, common brick and frame, tin roof, galvanized iron work, common and cathedral glass, softwood finish, safe vault and bank fixtures; cost \$3,000. For Rev. J. W. Bissell, Fayette, Iowa, residence, frame, shingle roof, common and stained glass, hard and soft wood finish, mantels, grates, furnace, bathroom outfit, etc.; cost \$2,000.

**Findlay, Ohio.**—Architect G. Horn has made plans for a three-story residence, 56 by 64 feet, for W. W. French; limestone exterior, slate roof, galvanized iron cornice, copper bays, inside blinds, frescoing, plate and cathedral glass, wood mantels, grates, gas fixtures, bathroom, kitchen and laundry outfit, and modern improvements; cost \$10,000.

Architect W. G. Williams has plans: For M. R. House, two-story residence, 25 by 42 feet; frame; oak and pine finish, natural gas grates; cost \$2,500.

The Church of God will erect a \$2,500 frame church building, and the St. Michael's Catholic Society a \$10,000 church.

**Grand Rapids, Mich.**—Architect S. J. Osgood: For M. L. Bocher, residence; cost \$14,000; Richens & Stearns and J. Sullivan contractors. For A. Yates, two houses; cost \$4,000; Rowsen Bros. contractors. For Radcliff & Holt, storage warehouse; cost \$5,000; C. H. Vincent contractor. For Wm. Miller, residence; cost \$5,000; Hosken & Munder and Rowsen Bros. contractors.

Architect P. S. Hopkins: For R. R. Montgomery, Decatur, Ill., dwelling and stable; dwelling 36 by 46 feet, have electric bells, gas fixtures, mantels, furnace, etc.; cost \$5,500.

Architect W. G. Robinson: For F. M. Davis, residence; cost \$4,000. Rowsen Bros. contractors. For Dr. Hazeltine, residence; cost \$2,000; R. Blandford contractor. For Jas. Farnsworth, flat building; cost \$2,600; R. Blandford, contractor. For Mr. Finkler, residence; cost \$3,500; J. Barth & Sons contractors. For Mrs. Armstrong, residence; cost \$1,600; Chas. Hoertz contractor. For J. F. Cramer, residence; cost \$2,000; Chas. Hoertz contractor. For Wm. Coles, residence; cost \$3,000; Campbell & McNabb contractors. For Mr. Hawkins, four-story business block; cost \$30,000; first story stone, remaining red brick with

stone trimmings. For F. Loettger, four-story business block; cost \$20,000. For J. G. Lehman, business block; cost \$9,000. Hibernia Hall; cost \$20,000; pressed brick, stone and iron trimmings.

The following parties are having plans made and contemplate building during the present season: A. Groskopf, \$1,200 house; R. Johnson, \$2,500 house; F. P. Kirkwood, \$1,500 house; H. H. Fountain, \$3,500 house.

The following additional buildings are under way: C. H. Van Anden, \$1,400 house; J. T. Quigley, two houses, \$1,000 each; W. H. Kinsey, two houses, \$900 each; Wm. Walker, two houses, \$1,000 each; E. Smith, \$900 house; Geo. Kirkland, \$1,400 house; E. A. Dixon, \$1,200 house; Mr. Lockman, \$1,100 house; E. T. Ward, improvements, \$1,500; H. G. Smith, \$1,100 house; Hushman & Reed, two \$900 houses; B. W. Barnard, two \$800 houses; C. H. Van Anden, \$2,000 residence; E. T. Peck, \$1,000 house; W. B. Collins, \$2,000 house; E. B. Seymour, \$2,500 house.

**Hot Springs, Ark.**—The Southern Methodist Society will erect a \$20,000 church from plans made by Architect M. Q. Wilson, of Louisville, Ky.

**Kenosha, Wis.**—The Lane Manufacturing Company will erect a factory building; will have wood-working machinery, freight elevators, electric lighting, shafting, belting, pulleys, a complete plant.

**Little Rock, Ark.**—Architects Orlepp & Kuessner have made plans for a store and office building, to be built by G. H. Sanders; cost \$25,000.

**Macon, Ga.**—Architect Alex. Blair has completed plans for Christ's church; estimated cost \$10,000.

**Muncie, Ind.**—Architect Theo. Von König has prepared plans, which have been accepted by the county commissioners of Delaware county, for a children's home. The building will be three stories in height, 62 by 60 feet; brick construction, slate roof; estimated cost \$9,000. Bids on same will be opened on the 31st instant.

**Peoria, Ill.**—Architect P. F. Mehler: For Dr. T. M. McIlvaine, two-story residence, 44 by 35 feet; pressed brick, frame and stone, slate roof, wood mantels, grates, hard and soft wood finish, electric work, annunciators, speaking tubes, bath and laundry fixtures, etc.; cost \$4,500. For Chas. Kimmel, two-story residence, 35 by 58 feet; pressed brick, frame and stone, slate roof, pine finish, wood mantels, grates, annunciators; common plate and cathedral glass; ranges, refrigerators, speaking tubes, bath, kitchen and laundry fixtures, etc.; cost \$4,500. For convent of the Sacred Heart, Odell, Ill., two-story building, 30 by 45 feet; common brick, frame and stone, shingle roof, wood cornice, oak and pine finish, common and stained glass, wood mantels, gas fixtures, electric bells, speaking tubes, school bell, paneling and wainscoting, iron crestings, hot-water heat, etc.; cost \$3,000. For N. Baker, Metamora, Ill., two-story residence, 30 by 50 feet; frame and stone, slate roof, wood cornice; common plate and stained glass; iron crestings, inside and outside blinds, softwood finish, wood mantels, plumbing, kitchen, bath and laundry fixtures; ranges, refrigerators, speaking tubes, etc.; cost \$3,800.

**Pittsburgh, Pa.**—Architect F. C. Sauer has completed plans: For Mrs. J. F. Stevenson, residence; for J. Yost, McKeesport, Pa., residence.

Architect H. Moser is making plans for a Catholic church building, to be erected at Somerset, Pa. Also completing plans for school building for St. Joseph's Church at Johnstown, Pa.

Architect C. W. Hodgdon has made plans for W. P. Hendrickson, McKeesport, Pa., residence; frame construction; cost \$3,500. Under way, plans for two frame dwellings.

Architect J. W. Giles has completed plans for a brick dwelling, a fine store, office and apartment building, and is making preliminary sketches for a contemplated five-story family apartment building, to comprise thirty-four suits of flats.

Architect J. U. Barr: For Pittsburgh Iron Paint Company, two-story and attic dwellings, 26 by 65 feet; common and pressed brick, slate roofs, galvanized iron cornice, hard and soft wood finish, wood and slate mantels, grates, gas fixtures, electric bells, bath and kitchen outfits, American tiling, inside and outside blinds; cost \$14,000. For J. P. Seinton, Johnstown, Pa., three-story residence, 80 by 50 feet; common and pressed brick, gravel roof, galvanized iron cornice, wood mantels, softwood finish, electric bells, common and stained glass, plumbing, kitchen fixtures, etc.; cost \$7,000.

Architect T. C. McKee: Cumberland Presbyterian Society, church, two-story and basement, 80 by 100 feet; pressed and ornamental brick with stucco and terra-cotta trimmings, slate roof, hardwood finish, iron beams, galvanized and ornamental iron work, wood mantels, opera chairs, stained and cathedral glass, incandescent lighting, ventilators, railings, etc.; cost \$18,000.

Architects McBride & Gray have completed plans for a Queen Anne style residence, to be built at Edgewood Station by D. E. Jackson.

Architect F. J. Osterling has made plans for G. H. Fox, of Kittanning, Pa., for a two-story and attic residence. The design presents a handsome exterior, and the interior will have all modern conveniences.

Architects Bickel & Brennan have prepared plans: For J. Hufnagle, four-story residence, stone construction. For Dr. W. R. Hamilton, two-story residence, brick and stone, Gothic roof. For Commodore John Rodgers, four-story store and apartment building. For D. B. Wilson, two-story residence, stone construction. For H. P. McCullough, two dwellings.

Architect J. N. Campbell has made plans: For L. Ranwolf, three-story store and apartment building, pressed brick with Grafton bluestone trimmings; cost \$10,000. For same party, addition to business block of two stories; cost \$6,700. For David Foster, residence, frame; cost \$3,500. For G. S. Campbell, McDonald, Pa., residence.

Architect W. S. Fraser: For Y. M. C. A., improvements in Liberty Hall, converting third floor into a gymnasium with bathroom and concomitants; second floor into parlors, reading room and lecture room; first floor, libraries, parlors and secretary's room.

**Savannah, Ga.**—Architect A. S. Eichberg has prepared for a block of one-story store building, to consist of six stores, for S. Guckenheimer; cost \$6,000. Also plans for remodeling school building.

**San Francisco, Cal.**—The building outlook continues encouraging; a large number of buildings are being planned for immediate construction, while others are projects of the near future.

Architect Henry Geilfuss reports: For F. A. Lux, factory building; cost \$6,000. For H. Conkaren, three-story frame; cost \$7,000. For O. F. Von Rhein, two-story residence; cost \$7,000.

Architect W. H. Armitage: For M. Harlief, two two-story frame dwellings; cost \$5,000. For W. H. Adams, two two-story dwellings; cost \$14,000. For Dr. F. T. Lord, three-story frame; cost \$15,000. For Mrs. Morrow, three-story frame; cost \$5,000. For Mrs. C. Colette, three-story frame; cost \$6,500.

Architect J. M. Curtis: For T. W. Boyd, residence; cost \$8,000. For I. S. Willis, residence; cost \$8,000.

Architects Percy & Hamilton: Academy of Science Building; marble and tile work; cost \$28,000.

Architect C. I. Havens: For J. Reid, two-story dwelling; cost \$6,000.

Architect T. J. Welsh: For P. A. Smith, frame building; cost \$8,000. Roman Catholic church; cost \$52,000. For Mrs. M. A. Mercer, residence; cost \$6,000.

For J. Goetz, brick building; cost \$9,000.

Architect W. Mooser: For L. Schultz, hotel building, brick and stone; cost \$80,000. For same, brick building; cost \$10,000. For Chas. Neff, frame building; cost \$6,000.

Architects Wright & Sanders: For Mrs. E. B. Sanborn, three-story warehouse; cost \$18,000.

Architect W. Winterhalter: For H. Zweig, four-story addition to malt house; cost \$6,000.

Architects Huerne & Everett: For J. B. Magendie, three-story and basement brick building; cost \$3,500.

Architect C. J. I. Devlin: For Jane Besley, three-story frame building; cost \$65,000.

Architect A. C. Lutgen: For O. H. Hund, three-story and basement residence; cost \$9,000.

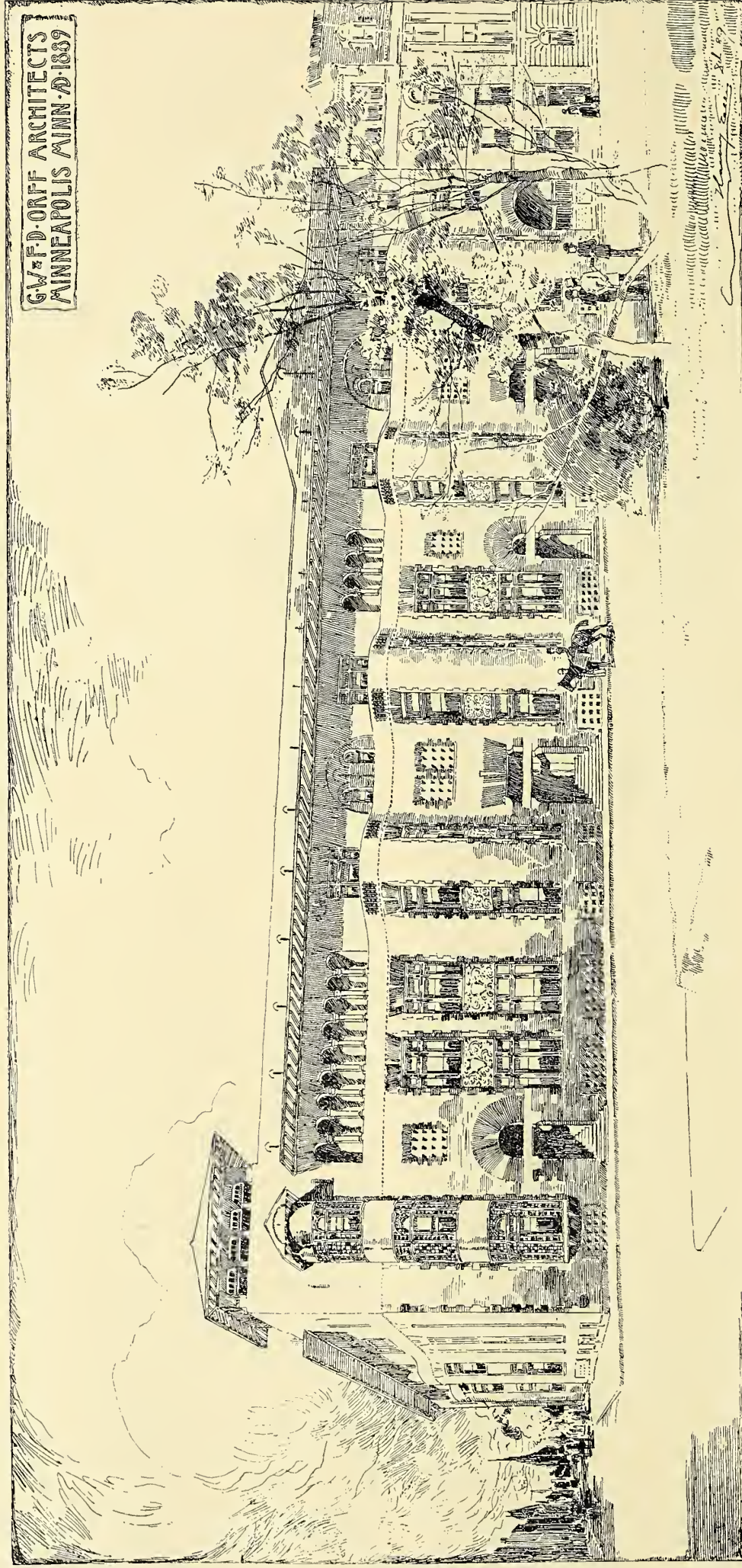
Architects Mathews & Son: For J. S. Bunnell, residence; cost \$5,500.

**Warrensburg, Mo.**—Architect J. H. Stone has prepared plans for J. H. Smith, for a two-story residence, 35 by 45 feet; will have common and stained glass, wood mantels, grates, bathroom outfit, etc.; cost \$2,000. Also for Rev. J. A. Lord, a two-story residence.









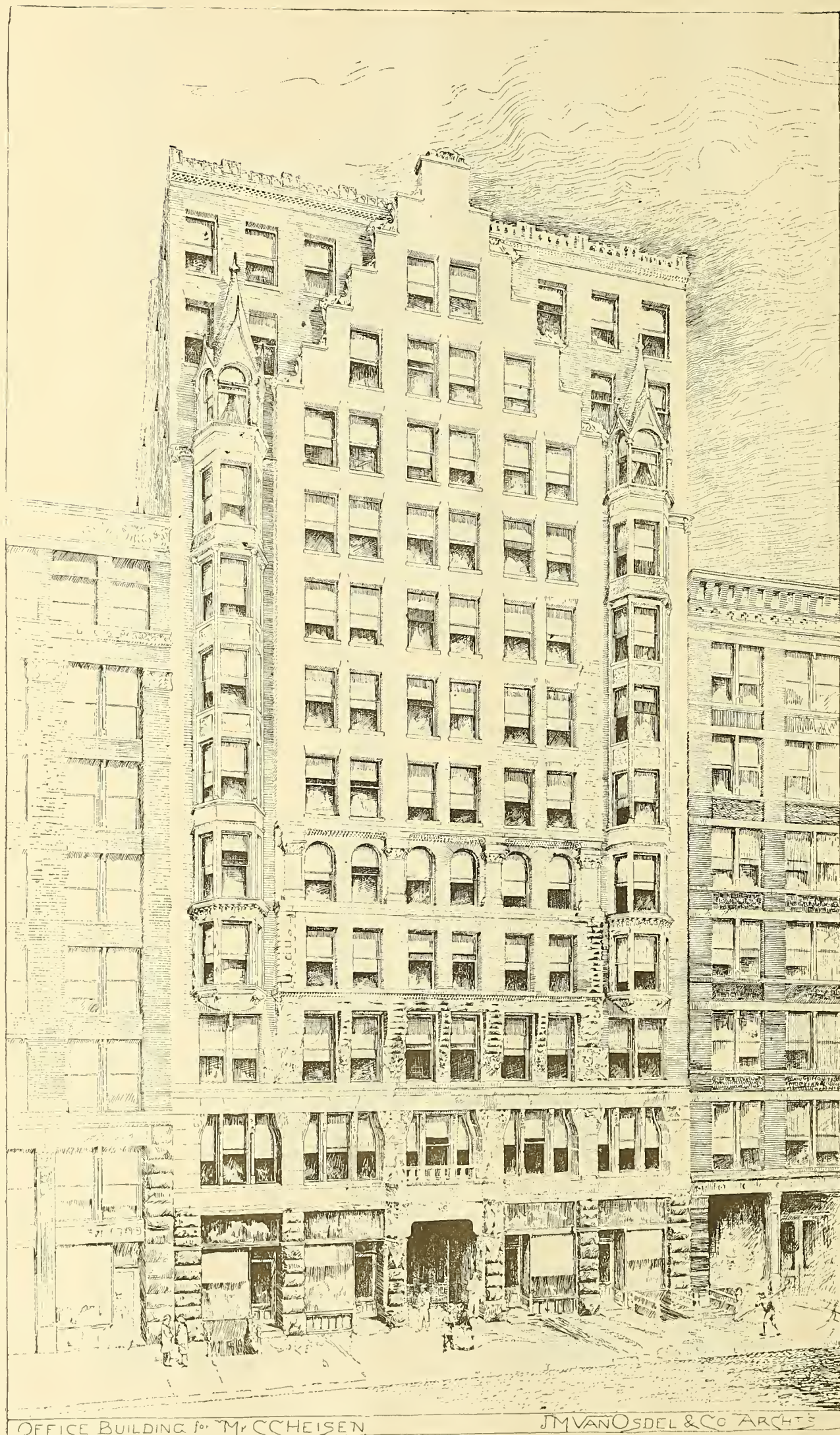
TENEMENT BLOCK FOR HENRY W. JAMES, MINNEAPOLIS, MINN.

G. W. AND F. D. ORFF, ARCHITECTS.





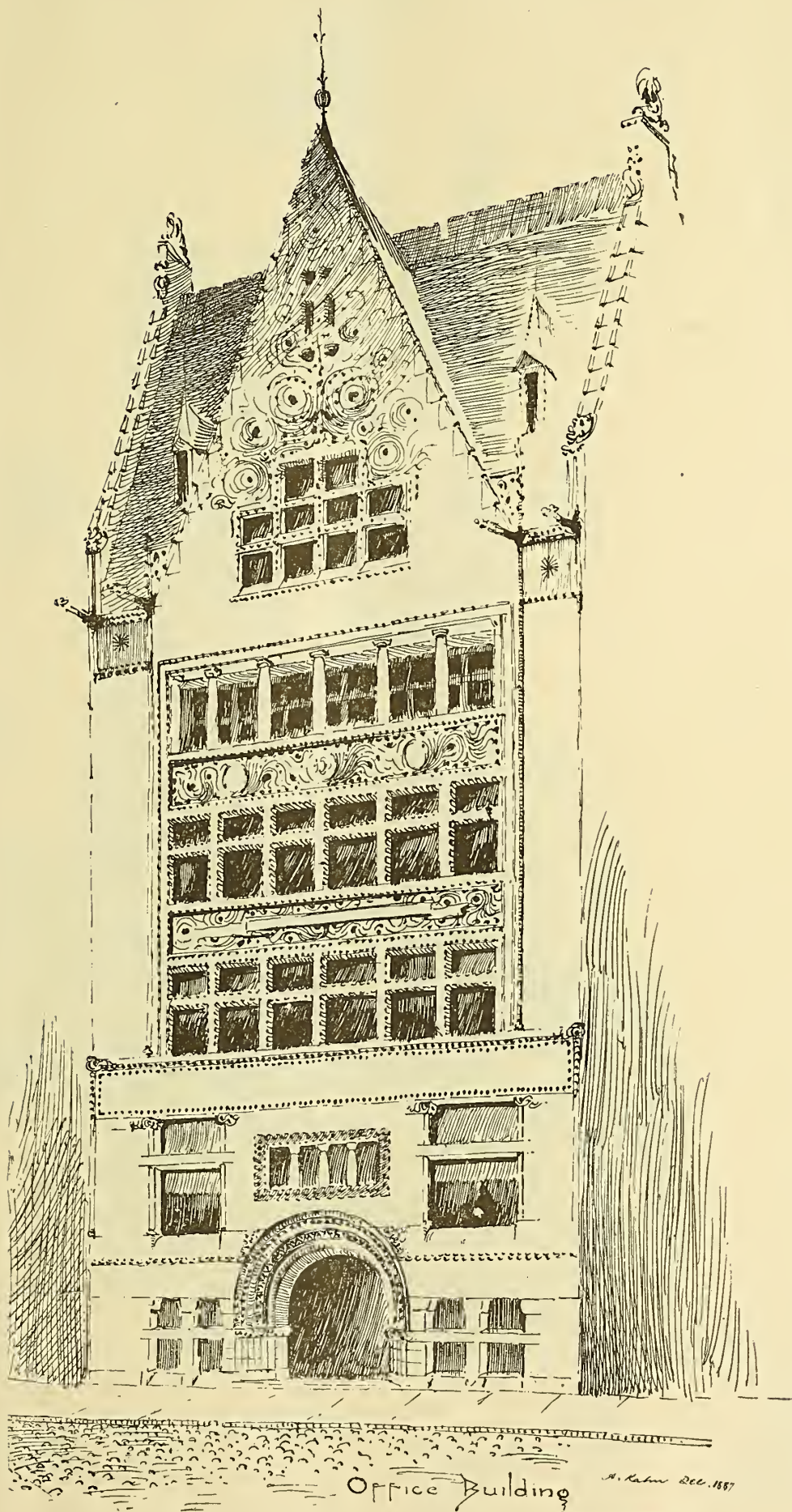




OFFICE BUILDING for Mr. CCHISEN

JM VAN OSDEL & CO ARCHTS





Office Building

Mason & Rice Architects

Detroit

H. Kahn Dec. 1887









RESIDENCE FOR JOSEPH FAIRHALL, GRAPE CREEK, ILL.

IRVING K. POND AND ALLEN B. POND, ARCHITECTS, CHICAGO





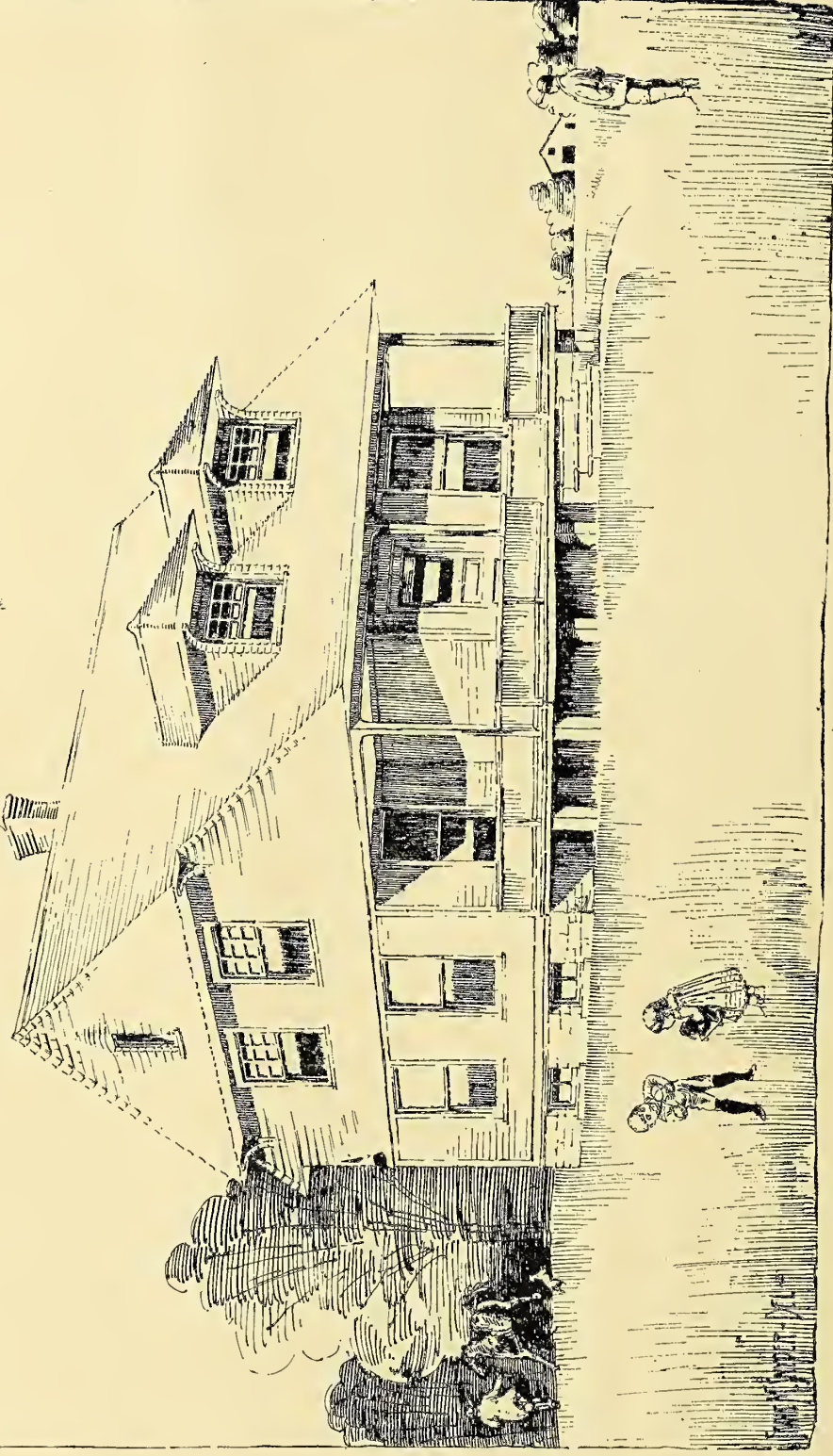






# Ranch House for Mr. C. Anthony

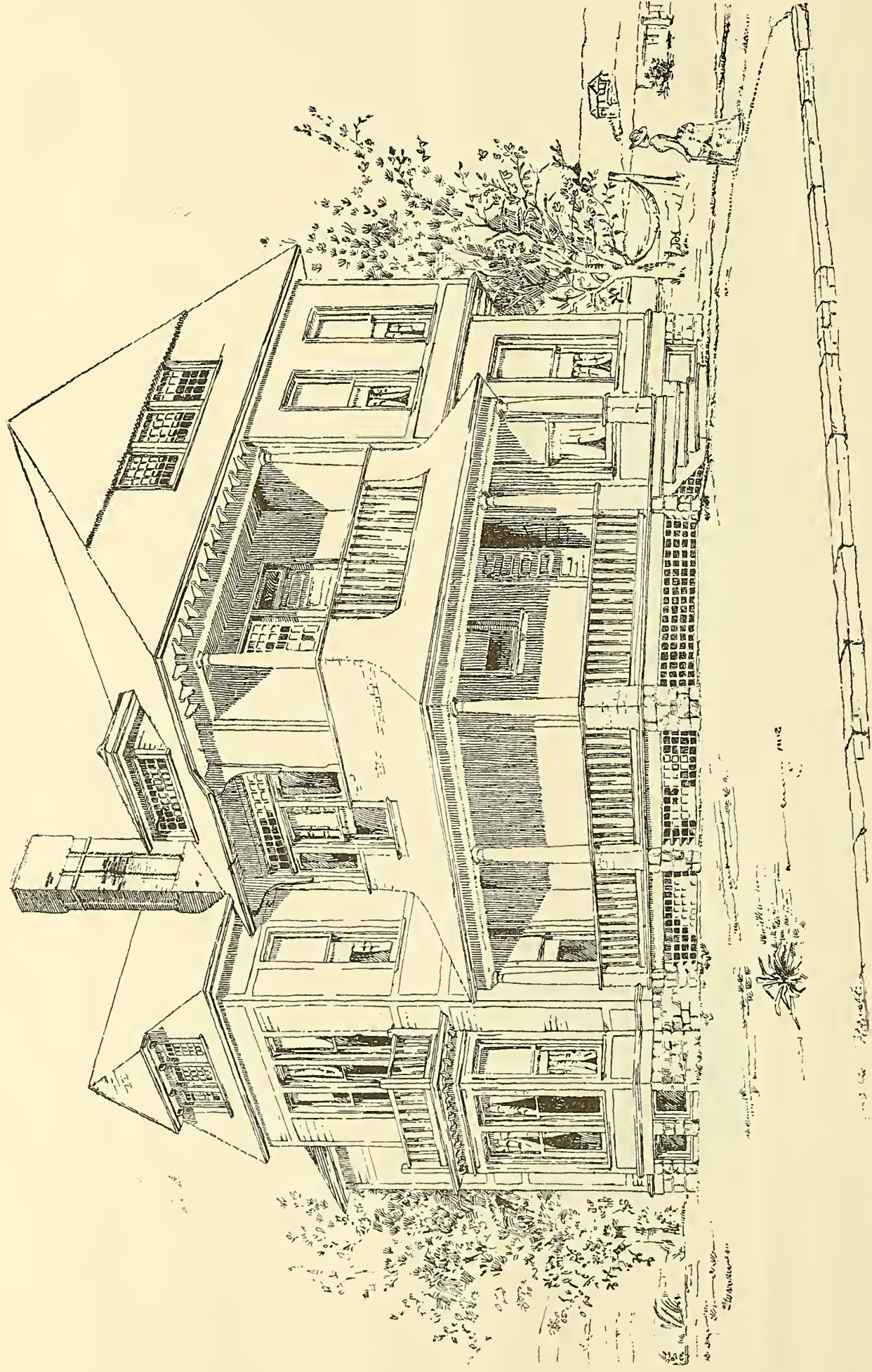
W. G. MARBLE & LAYTON ARCHT.  
909-10-11-12-13-14 LA SALLE ST.  
(CHICAGO) ILL.







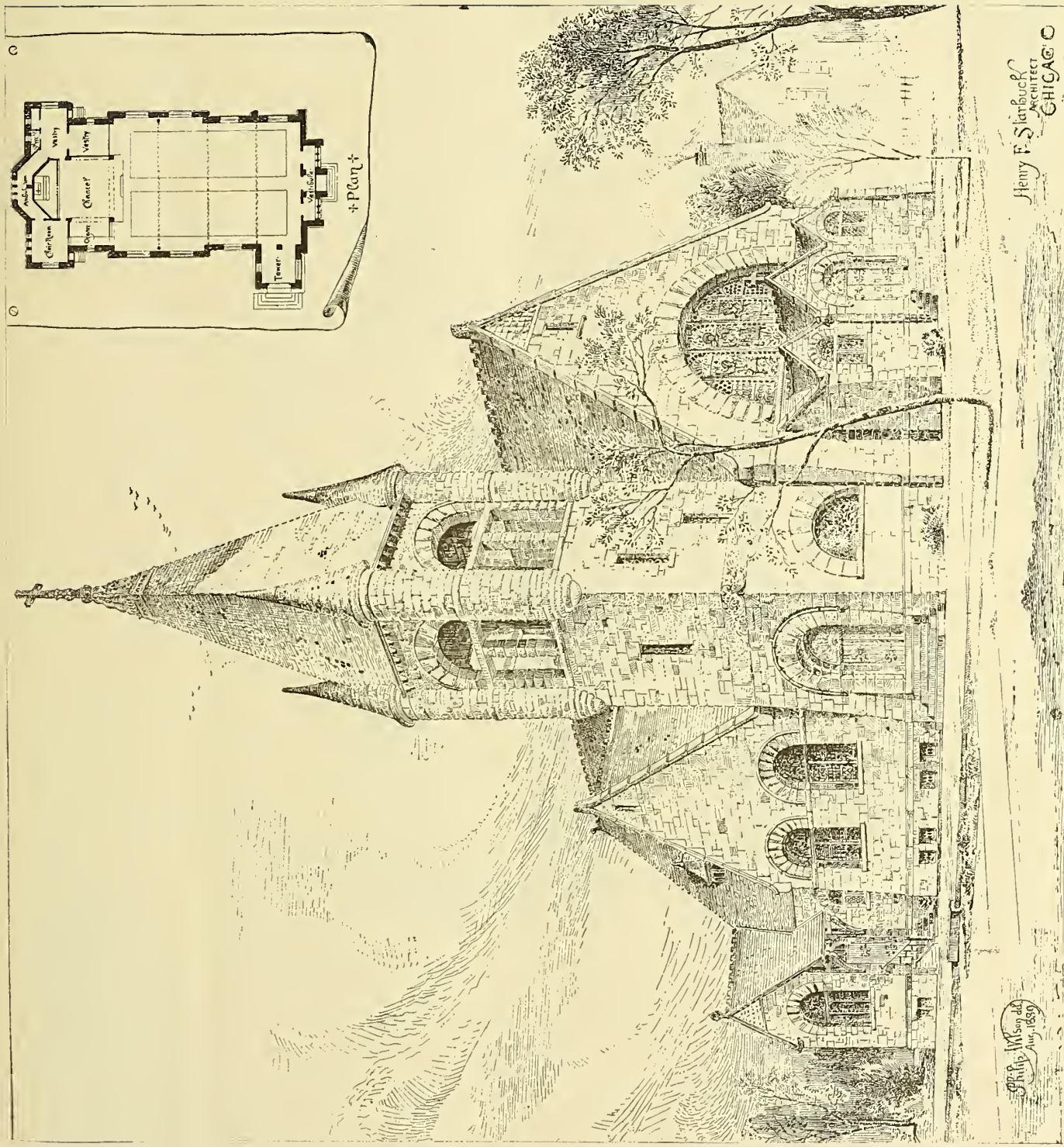




RESIDENCE OF DR. B. ST. J. FRY, ST. LOUIS, MO.

C. C. HELLMERS, JR., ARCHITECT.





TRINITY EPISCOPAL CHURCH, MICHIGAN CITY, IND.

HENRY F. STARBUCK, ARCHITECT, CHICAGO.

Henry F. Starbuck  
Architect  
CHICAGO

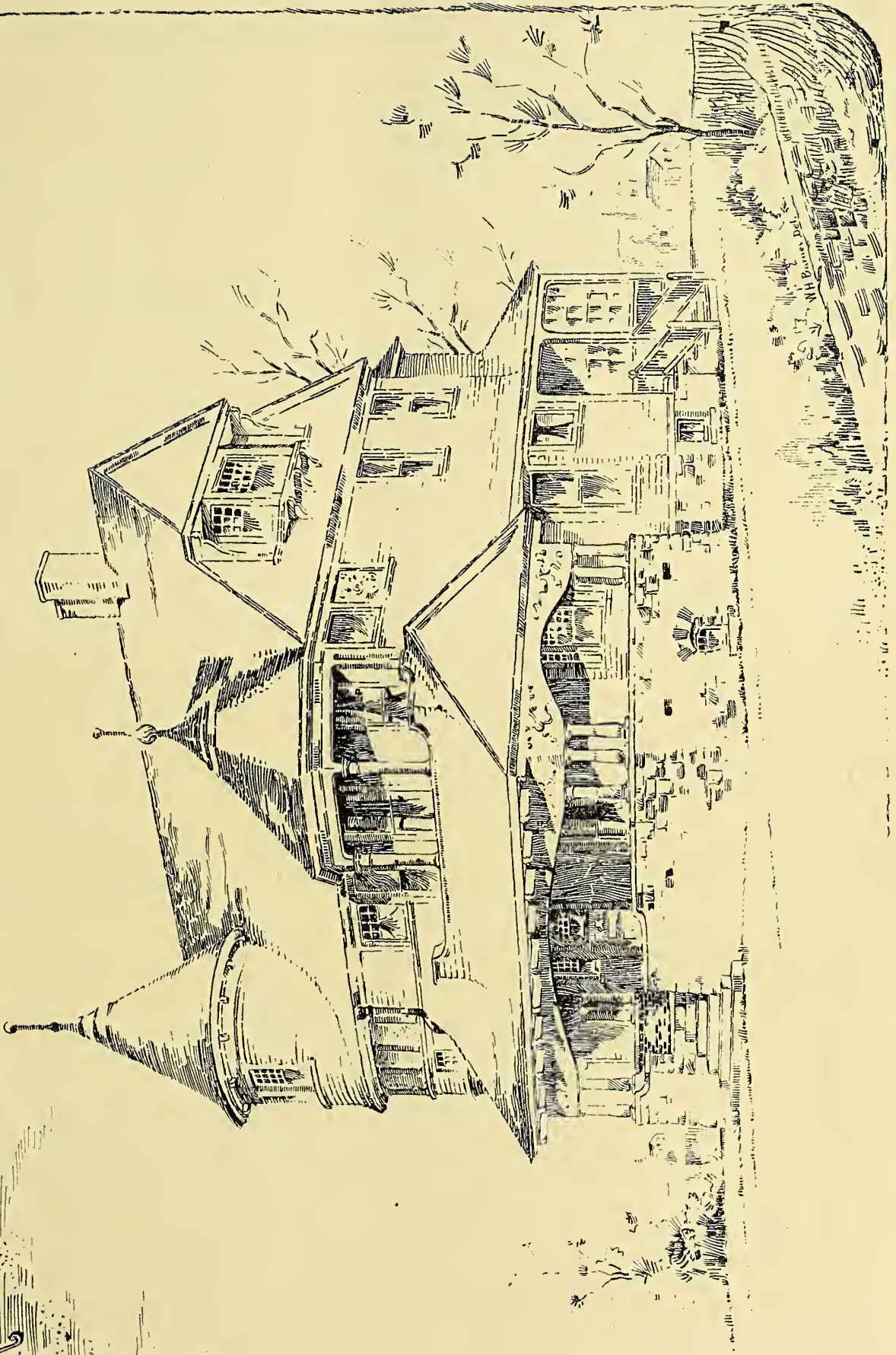
Wm. H. Wilson del.  
June, 1899







RESIDENCE of Rochester, N.Y.  
Opp Block ARCHITECT.









<p><b>General Directions Regarding the Convention.</b></p>	<p>The joint convention of the American Institute of Architects and the Western Association of Architects upon the date of the regular annual meeting of the Western Association, for the purpose of consolidation, is attracting the attention of the profession, not only on this continent, but the proceedings and the result of this combination will be watched with interest throughout the globe. The proposed constitution and by-laws of the new society were published in our February number, and on page 54 the official programme and general instructions regarding the conduct of the convention are printed in full. We would call special attention to that portion of the circular referring to railway transportation. It will be noticed that all architects in cities tributary to New York or Albany and in the New England States should purchase tickets to New York or Albany and from thence by the certificate plan; those in the Northwest to St. Louis or Chicago. The agents of the Vandalia line and C. H. &amp; D. at St. Louis will run a special car if sufficient architects will notify the road in advance through the general passenger agent of the C. H. &amp; D. R'y at Cincinnati. The circular issued by the committee of arrangements to those who will pass through Chicago shows that the committee have been active in securing the best possible rates, as well as accommodations, from that point. We have not learned of such an arrangement having been made from New York or Buffalo, but</p>
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there is no doubt that a little enterprise on the part of the eastern portion of the committee could effect this, so that all could come together in a special car. There should be a large representation of Canadian architects at this convention, as it was probably with a hope that they would join the association that it was made continental in character, and as visitors they will have every privilege of the convention except that of voting. If a sufficient number of names were received by W. W. Carlin, at Buffalo, which, added to those intending to go from that place, would warrant the securing of a special car, there is no doubt that Mr. Carlin would take measures to secure one. We would suggest that architects as far as possible aim to reach Cincinnati on Tuesday evening, as the reception and exhibition given by the Cincinnati Architectural Club will be well worth attending.

**A Contemporary's**  
**Remarks on**  
**the Coming**  
**Convention.**  
A suggestion in regard to the consolidation convention was made recently by the *American Architect*, which, if carried to its logical conclusion, would destroy the vitality of the association more certainly and quickly than anything we can at present imagine, and that is that "it would be a good thing if an arrangement could be made for giving some sort of representation (i. e., vote by proxy) in the convention to members of the two great bodies who are unable to be present in person." The article is too long to quote entire, but the argument is mainly that only about one-tenth of the members of either body have been in the habit of attending the annual conventions. The smallest number of members of the American Institute attending a meeting in five years was at Nashville, which, if we remember correctly, was twenty-eight, or about one-tenth of the membership. At the conventions of the Western Association the attendance has seldom been below one-third the total membership. In the Western Association, at least, questions have never been "timidly discussed and finally disposed of with an unmeaning resolution," a statement that is as inaccurate as that "not more than one-hundredth part of the architects of the United States" (about twenty-five), will attend the Cincinnati convention. In regard to this and the other remarks referred to, Architect J. W. Yost, of Columbus, Ohio, writes the following to the editors of the *American Architect*, which, as an association document, is worth reading:

*To the Editors of the American Architect:* COLUMBUS, Ohio, October 28, 1889.  
DEAR SIRS,—The first article in your issue of October 19 leads me to make a few remarks, which I hope you will publish in a prominent place, and charge me with any responsibility for offense given to any person who considers himself referred to.  
I hope your estimate of the number who will be present at the Cincinnati convention is entirely too small.  
In regard to absentees being represented, I desire to say this: If any are sick or detained by affliction, or if any are not possessed of the means necessary to attend the convention, I hope that all such may have a representation; and if they will all write letters to the proper officer, expressing their views upon any question to be considered, I have no doubt their opinions will be treated with the same respect as though they were present in person to take part in the discussion.  
I will say further, that I, for one, would be glad to hear expressed there, the opinion and wishes of every architect in the country, upon every subject which may come up to be decided, but I am decidedly opposed to having persons who willingly absent themselves from the meeting represented by any means whatever.  
I can think of nothing outside of the two reasons above stated which can furnish a sufficient excuse for any member of the profession being absent.  
The notion that anyone is detained by business engagements has no foundation in truth. All such can be there if they will take a little trouble to arrange their business beforehand, without losing anything in a business way, and all will be greatly gainers by an attendance. There is probably no client in the United States who will not respect a request to be absent from business, upon the part of his architect, during those two or three days, if the architect will be candid enough to give the reason for his request. It is not "business" which will keep anyone away. If any member of the profession was offered a fine commission if he would be in Cincinnati at that time, 999 out of every 1,000 of us would

find that our business at home would not need our attention just then. Therefore, I say let us lay down our business, put aside all other engagements and be present at the Cincinnati convention.  
To send someone else as a representative is about equal to sending somebody else to eat a dinner for us, and to ask to be represented when one willfully makes engagements to be absent, is about equal to one who neglects all his duties in this life, wanting to dictate the design for the crowns to be worn in the New Jerusalem.  
The way to do the profession good, and particularly to do ourselves good, is not to send somebody, or a letter, but to be at the meeting ourselves.  
Respectfully yours, J. W. YOST.

The important measures that should come before the convention, and be discussed and acted upon, are carefully enumerated in the editorial referred to, and granting that in the past the attendance has been small, even as stated, all this is the strongest kind of argument why every member of both associations should make it his special business to be present at the coming convention. Instead of suggesting so weak and impracticable a policy as a vote by proxy, the *American Architect* should do all in its power to urge the importance of being present upon everyone within its reach, as one of the most valuable features of these annual conventions is the social intercourse that establishes a bond of friendship between architects, where otherwise would exist but a cold, and, too often, ignored fellowship.

**Continental**  
**Character of**  
**the New**  
**Association.**  
We recently received a letter from a Canadian architect in which he inquired if Canadian architects would be admitted as members of the new association. Our understanding of the new constitution is that any architect living between Alaska and Patagonia who can comply with the required qualifications is eligible for membership. The article in the constitution relating to locality says the objects are "to unite in fellowship the architects of this continent," etc., and the section in the by-laws referring to membership requires three photographs of completed work, accompanied by other drawings, and the indorsement of two members of the association. Candidates are voted upon by letter ballot, after being passed upon and recommended by the board of directors. It might be stated in this connection that architects who are not members will be heartily welcomed at the coming convention and enjoy every courtesy tendered visiting members.

**Unsatisfactory**  
**Result of the**  
**Clark Medal**  
**Competition.**  
We have not met Mr. Robert Clark since the committee appointed to award the prizes founded by his munificence has had its meeting, but we doubt not that the thought uppermost in his mind after hearing the result of the competition must have been one of regret that there is, among the draftsmen of the United States, so little desire to grapple with the solution of the more burdensome and difficult problems which are daily placed before the architect; that there were but five participants in the first competition for the Clark medal, and that these few participants failed, almost to a man, to comprehend that the problem was not the designing of some vague, indefinite kind of an apartment house, but the designing of an apartment house of certain fixed dimensions, and adapted to the wants of families with a certain stated fixed income. We understand that the committee in fixing this income had in mind the fact that it comprehended within its range the salaries paid the average draftsman; that in propounding this problem it endeavored to come as near home to his actual wants as possible; and that it believed that there would be many among the draftsmen of the United States who had given this matter grave consideration, and were eager to give expression to their thoughts and studies as to how people of their



means could be advantageously and satisfactorily housed. This competition seems to demonstrate that the draftsmen of the United States have little desire to fit themselves for the responsibilities and duties which will devolve upon them when they emerge from their present condition into that of full-fledged architects, and that they are only willing to make mere drawings in competition for "a clock tower on a village green," "a monumental bridge," "a country inn," or to solve any problem of the class which calls upon their skill in draftsmanship, but imposes upon them no restraint and no responsibilities. Would it not be time for these young men to begin to feel that if ever they wish to rise in the world, if ever they wish to become architects with large practice they must be ready at all times to face problems involving limitations and conditions of every conceivable character, desirable and undesirable, and that, very often, the more distasteful, the more harassing, the more embarrassing the limitations and conditions of a given problem intrusted to them, the greater must be their effort to secure a satisfactory result, and that their usefulness, and, therefore, their success in future life will be measured by the ability displayed by them in handling these difficult and disagreeable tasks.

The World's Fair and the Architectural Profession.

Within a month hence the much contested question of where the world's fair is to be held will be settled by congress. There is not a doubt expressed that such a fair will be held, and everyone in the United States who, with a wide knowledge of the country and affairs in general, calmly considers the question without prejudice, on the broad plane of "the greatest good to the greatest number," will decide that this ideal location is at Chicago. It is so certain that this will be the verdict of congress, that all preliminary steps should be taken, such as selecting site, planning the general arrangement, and the appointment of architects for the designing of the needed structures. There has been much discussion of plans for some phenomenal structure to eclipse the Eiffel tower of the Paris Exposition; but while we grant that such a tower shows engineering skill of a high order, it is a trivial affair compared with what might be done to make this fair interesting to the visitor and famous with posterity. If we were to make a suggestion in this line it would be in the direction of some great public work, such as the proposed ship canal to the Mississippi, or construction of sub-ways under every street in the city, which would hold every underground conduit and make the surface of the streets permanent. Some work of public benefit rather than a public marvel. If Chicago, instead of raising a column of steel, should abolish, by the use of fuel gas for instance, the column of half decomposed coal that, suspended over the city makes her the dirtiest city on the continent, it would be much more creditable and useful. The plan that seems not only the most feasible, but that which would make the results of the fair permanent, would be the use of the lake front. The ground is a number of acres larger than that covered by the Centennial buildings at Philadelphia, but this would only be used for the main building, and the basin would be filled in for a thousand yards and docks constructed. This would be permanent, and it will not be many years (the city needs it now) before this will be done to accommodate the marine traffic which has grown beyond the capacity of the river. In the parks at the south, southwest, west, northwest, and north of the city, would be erected the buildings for agricultural, horti-

cultural and other kindred exhibits, and the improvements of the intersecting boulevards and the buildings erected would be a permanent good to the people.

The Design and Construction of the World's Fair Buildings.

It is in regard to these buildings that we would be especially emphatic and in which the real credit of the fair will rest. The proposition to purchase the buildings at Paris and transport them here, on the plea that there is not sufficient time to erect new ones, is ridiculous, and the mind that conceived the idea had better be dropped from the councils of those whose mission it is to make this fair a practical success. The structures can be built, and on time, by the architects and builders of the country, if they are allowed to work in a proper way. First of all, architects should be selected because of their ability demonstrated by past work. Second, they should be paid the regular and standard commission for that work. There should be no hesitation in this particular. No grand competition scheme should be thought of for a moment. Capable architects should be assigned definite work and then given every assistance, as well as the longest limit of time to study their design, so that the entire fair will be an exhibition of modern architecture that will make all previous creations fade into insignificance. We would not confine the work to Chicago architects any more than to Chicago contractors. We would insist that the best talent our country has produced, and none but the best be employed. Architects of ability will engage in the work upon no other basis than that outlined. While the fair is a patriotic enterprise it is a business scheme as well, and the methods employed must be founded upon good business practice. Our best professional talent, as our best material, must be employed, and it must be paid for, or it cannot be procured.

Architects' License Bill in the State of New York.

An important feature of the recent annual meeting of the Western New York State Association of Architects was the discussion of the bill to license architects, which a committee has in charge to introduce in the next state legislature. While this committee is large and strong it should be the special business of every architect in the state, especially those located in New York City, to use to the utmost his time and influence toward the passage of this bill. The proceedings of the meeting and the first draft of the proposed bill are printed in this issue. As we have often stated, it is upon the legal recognition of the profession in the several states that the foundation of correct architectural practice must rest, and until this is secured all other measures looking toward the elevation of the profession will be ephemeral, if not abortive.

National Exhibition of Drawings at Cincinnati.

The National Exhibition of Architectural Drawings held under the auspices and collected through the enterprise and energy of the Cincinnati Architectural Club will, aside from the convention, make Cincinnati attractive to architects. The opening of this superb exhibition, in which will be included the largest collection of architectural drawings ever brought together in this country, will occur on the night of November 19. As this is the day before the opening of the convention, architects should plan to reach Cincinnati on that evening and give the time to inspecting this exhibit, as the time that can be taken from the days of the convention will be too brief and unsatisfactory.



## Romanesque Architecture.\*

### CHAPTER II.

BAPTISTERIES OR RURAL AND MORTUARY CHAPELS—BAPTISTERY OF BIELLA, ITALY—RURAL CHAPELS OF THE TRINITY (ISLE ST. HONORAT OF LÉRINS)—BAPTISTERY OR MORTUARY CHAPEL OF ST. CROIX OF MONTMAJOUR (FRANCE).

THERE exists in different provinces very interesting little antique edifices, baptisteries or chapels. These last are doubtless examples of little rural churches built in great numbers in the first centuries of our era, and that the manuscripts of the time of Charlemagne described under the name of chapels, or else oratories built

ordinarily in the cemeteries of the cities, or of great religious establishments. If only the form of these little edifices was described one would say that they were baptisteries. We know that in earlier times baptisteries were separated from the churches and had different forms. They were square, octagonal, or presented in plan a trefoil or quatrefoil.

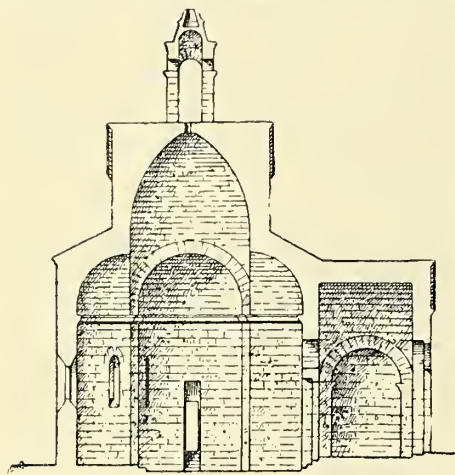


FIG. 99.

The baptistery of Novara is octagonal,

built about the end of the fifth century, from the model which St. Sylvester had erected in the preceding century, near to St. John of the Lateran. That of Biella, which dates from the ninth century, presents in its plan the quatrefoil, and recalls in its elevation the arrangement of Novara.

According to some authors the little edifice of St. Croix of Montmajour, near Arles, which dates from the first years of the eleventh century, must have been, without doubt, a mortuary chapel, because it is surrounded with tombs cut in the rocks. However, we ought to state that St. Croix presents in its plan, as well as its elevation, the almost identical form of the baptistery of Biella, which was described by the ancient authors as an edifice designed from the beginning for a baptistery.

The edifice of Biella consists of one story, surrounded by four apses or great niches, opening on to a central square, towered space, the tower resting on double arches, constructed at the head of the niches. The tower attracts attention by the peculiarity of its form. Pendentives were made at its base to bring it into harmony with the square; but constructed with timidity or inexperience, they only half rounded off the angles to get by a gradual deformation a little nearer the hemispherical form of the cupola. The dome is surmounted by a little campanile of much later construction.

A chapel, dedicated to the Holy Trinity, rises in the eastern part of the Isle St. Honorat of Lérins on the shore of the Mediterranean.

At first sight this singular edifice leaves us in doubt as to the epoch of its construction, but after a more minute examination we can see it ought to be placed considerably before the eleventh century. Built of broken ashlar, without moldings, without decoration, this chapel has appeared to all archæologists and architects who, up to the present time, have visited it, as one of the earliest that was built in Christian Gaul. This little sanctuary is composed of a nave covered with a barreled vault, terminating in an apse. A little cupola with a circular base and of conical form surmounts the space between the nave, apse and smaller apses.

According to Viollet-Leduc, there is not a cupola in the West as old as that of the chapel of the Trinity, which appears to date back to the seventh or eighth century, and this example, which probably was not the only one, indicates that the architects of this time were filled with the idea of the construction of cupolas on pendentives, for surely there were a dozen or more simple ways of vaulting the principal nave without having recourse to this means. There is evidently the idea of imitating the Byzantine constructions, then considered the chef d'œuvres of architectural art.

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

The plan of the chapel of St. Croix of Montmajour is exactly like that of the baptistery of Biella (Fig. 99). The only difference between the two edifices lies in the porch which precedes one of the apses of the chapel, and which makes the plan that of a quatrefoil. In the center above the square space formed by the intersection of the four apses, which are semicircular and vaulted in a quatre spherical shape, rises a square cupola with a pointed arch, whereon rests a campanile open on four sides, itself surmounted by a little square cupola.

According to modern authors St. Croix must be considered a mortuary chapel. This theory is supported by the fact that the only windows lighting the chapel open on the inclosure serving for the burial space. Through the night a lamp burns in the center of the monument, and, in conformity with the custom of the middle ages, these three windows throw the light of the lamp among the tombs. We should remark, apropos to this subject, that the tombs cut in the rock, while they might be of the time of the chapel, existed in great numbers for a long time before the edifice, and consequently the lamp in the interior would not have been able to light all the graves. Then we must insist on the identity of the plan and section that could be established between the baptistery of Biella and the so-called mortuary chapel of St. Croix of Montmajour, which makes it permissible to say, or rather affirm, that the latter monument must have been originally a baptistery, whatever might have been its later use.

This chapel or this baptistery resembles in its plan the Byzantine churches. Its skillful and carefully worked out construction, as well as its profile of moldings, remind one of the antique monuments so numerous in this region. We ought to notice that this work, as well as the monastery church of Montmajorie, was built in the first years of the eleventh century, and that in this epoch can be located the construction of the pointed arch.

### CHAPTER III.

CHURCHES WITH THE BASILICA FORM—CHURCH OF VIGNORY—CHURCH OF ST. GENOU.

The first Romanesque churches had only an ephemeral existence either because of the faults in their construction, or of the haste with which they were built, or from the inexperience of the builders. After more or less years of service the buildings either fell into ruin, or were torn down. Quicherat informs us that they saved what they could of them, pieces of the walls, an apse, some arcades

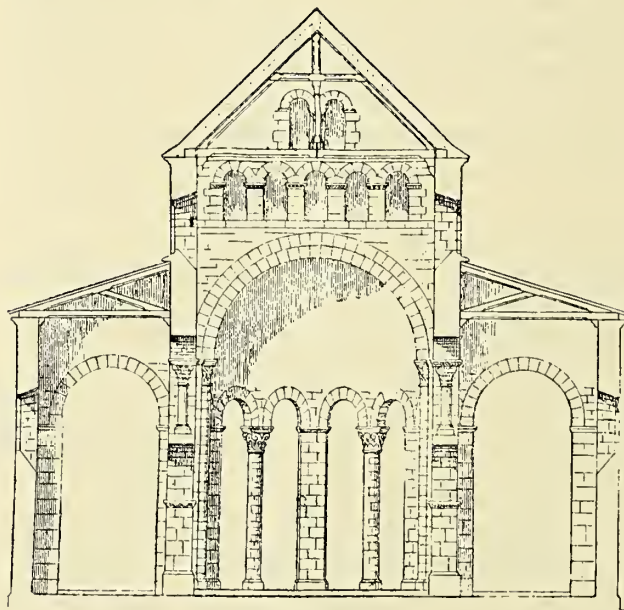


FIG. 103.

of the nave, the crypt, whose construction was well tested. The towers, of the same construction, having only narrow stories, shut in between four walls, were the best preserved part of the work up to the year 1000. There are few of them among those connected with the ancient churches, whose foundation does not show the same antiquity.

The study of the monuments show the precarious existence of primitive edifices. This fact is especially proved by the account in the eleventh century in the archives of the cathedrals and monasteries, of the partial or complete falling in of the buildings, an event as frequent after the year 1000 as fires had been before.

These accidents, resulting from the early experimental work, appear to have been the means of suggesting a compromise, to which we



owe the monuments of the eleventh century, which are so much better preserved.

Such is the church of which only a certain part is vaulted, while the rest of the edifice is covered with wood. Some of these edifices have come down to us in their original arrangement.

Such are the naves of Jumieges, of Montiérender, and the church of Vignory. The nave of the last church, a reminiscence of the Latin basilicas, is formed of two rows of arcades in a semicircle, above which rises other subdivided arcades, which are nothing but the traditional sham. (Fig. 103.) In Vignory these upper arches do not light the high gallery, according to the arrangement of the Roman basilica, and the arcades which are placed above the others open on the side aisles, which are only one storied. The nave and the side aisles are covered with an open timber roof. (Fig. 104.) At the eastern extremity of the nave the vaulted part commences, at first by

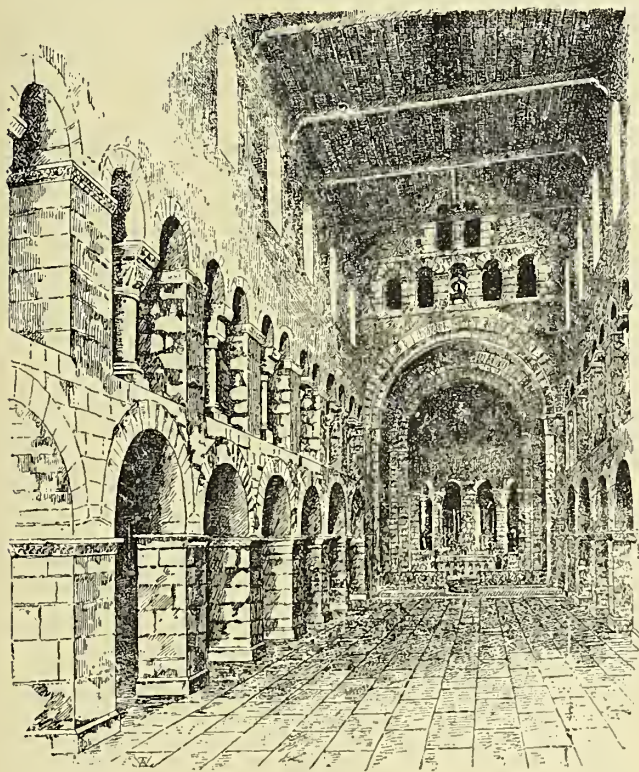


FIG. 104.

a triumphal arch accompanied by two smaller ones, then by lateral groined arches, strengthened by double arches, and finally by groined archings surrounding the semicircular choir, which is vaulted in quarter spheres the same as the chapels which surround the apse. It is well to note that the plan of the choir of the church of Vignory is like that in the church of the Holy Sepulcher at Jerusalem.

"From the end of the tenth century, one often sees the side aisles going around the choir and sanctuary and communicating with it by arcades supported on columns. From this epoch chapels opened out of the side aisles. In the eleventh century this arrangement and the lengthening of the choir came into general usage in the large churches. The side aisles went quite around the sanctuary in the church of Vignory and in the great churches of St. Savin and of St. Hilaire at Poitiers." (Fig. 105.)

The church of St. Genou has preserved the interior aspect of an antique basilica, whose character it recalls in its plan.

The nave of the ancient church of the monastery of the order of St. Benoit is formed of two rows of columns, the shafts of which are composed of regular courses of stone joined by narrow arches. Between these arches and the high round arched windows, lighting the central nave, is a row of arcades composed of small short columns supporting little arches of very solid cut stone. There is evidently in St. Genou, as in Vignory, a very marked reminiscence of the arrangement adopted by the Roman architects for the high galleries of the basilicas. In St. Genou, the blind arcade is nothing but the traditional ornament decorating the part occupied by the highest part of the roof of the side aisles.

The carvings of the large and small capitals supporting the arches and arcades is curious, because it shows in a rude or rather naive manner an antique and a Byzantine influence. They are very clearly shown by the details of the ornamentation, recalling in their rudimentary state the Ionic volutes, the Corinthian acanthus leaves,

the ornaments in low relief of the Arabians, at the same time that the heads with faces are an expression of a still more ancient art, whose origin is without doubt Oriental.

A great number of churches constructed toward the first part of the eleventh century in the northern countries, in Germany as well as France, for a long time preserved the traditions of the basilicas, while they observed the laws of the new style of construction. However, these first works bear witness to the great timidity of the builders, principally when they undertook to vault the great naves. Ribbed arches, those in quarter spheres, and even small cupolas were familiar to them and of frequent use, but we can see they hesitated a long time because of the numerous accidents that have marked their first essays, and that they searched for a long time for the formula of the system of construction which they applied so well in the following century.

Moreover, the architects of the eleventh century adopted different modes of construction for different churches. Some had their naves and side aisles covered with wood, as in Vignory, others had only the open timber roof over the central nave, and covered the side aisles with ribbed arches, and the apses and small apses with barreled and quarter spherical vaults.

In the center of the edifices built about this time, a lantern tower generally rose, carried on the triumphal arches of the naves of the apse, and on the lateral arches of the transept. If they no longer indicated on the exterior, as in early Christian times, the place of the high altar, they largely lighted the center of the church and shed light on the choir and sanctuary.

The origin of the lantern towers has been indicated. They are very ancient indeed, for we see one of the first examples of them in St. George of Ezra, certainly built in the year 516 of our era. Then we see them in different Byzantine churches, notably in the church of Theotocos, built by Constantine in the eleventh century; in the Palatine chapel at Aix and in that of Germigny-des-Prés.

In order to lessen the spread of fires, the nave was generally in the highest part, separated from the rest of the edifice by a gable rising

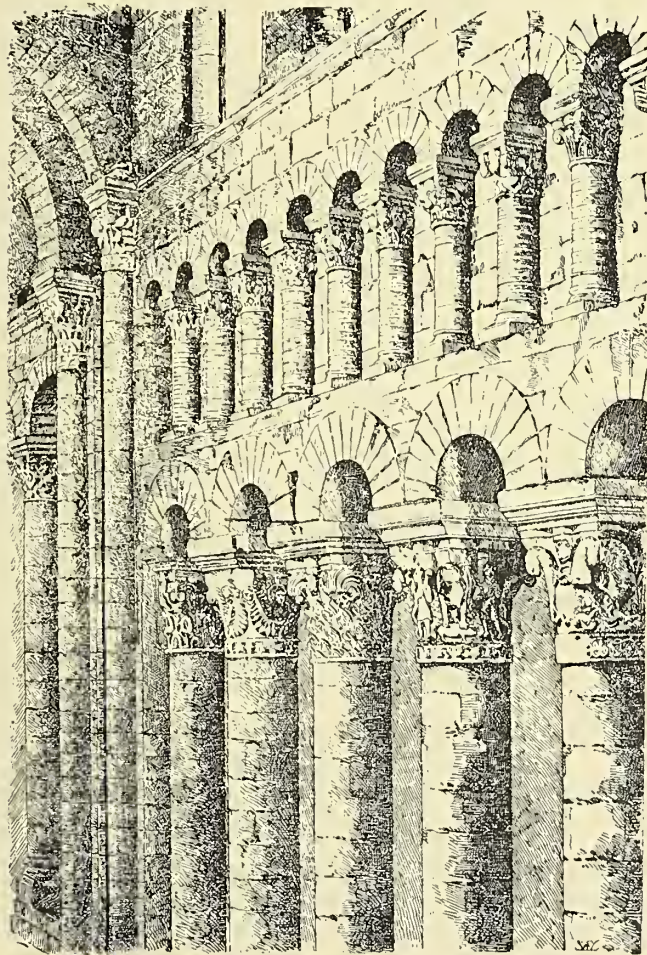


FIG. 105.

above the triumphal arch at the entrance of the transept, and forming one face of the central tower. It is a distant imitation of the Syrian architecture which we have noticed. The church of Roueiha, in Central Syria, was built in the sixth century, and presents this ingenious arrangement, which not only separated the nave from the



transept and the choir, but divided the nave by means of the gable raised on the ribbed arches of the central hall into several compartments, so as to lessen the effects of fire in the woodwork.

The abbey church of Cerisy-la-Forêt was built about 1020, by the great grandson of Rollo, Richard II, Duke of Normandy. It recalls

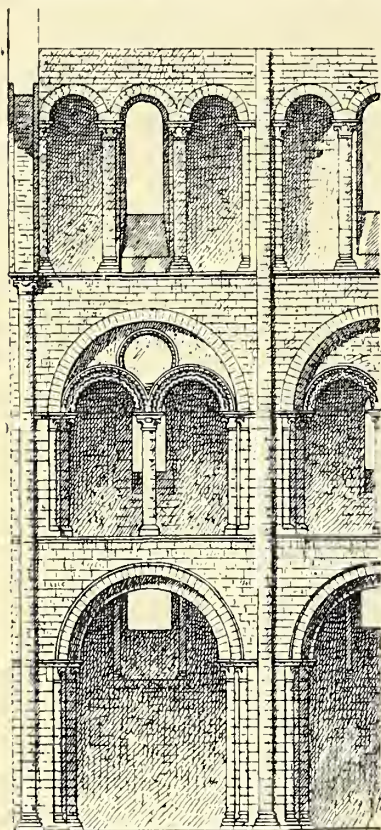


FIG. 108.

the arrangement of the antique basilicas, especially those of Central Syria, in the plan of its naves and transept, and by the prolongation of its apse and adjoining side aisles that of the Byzantine churches. In its transverse section it resembles the Syrian churches, and particularly that of Roueïha and Tourmanine. The only difference lies in the greater importance given to the transept by the addition of bays opening onto the central nave. Each of these bays is terminated in a small apse covered with greater spherical vaulting.

The abbey church of Cerisy-la-Forêt presents an example of an edifice built at the commencement of the eleventh century by the timid builders.

The choir, apse and adjacent small apses are covered with a quarter spherical vaulting. The side aisles, covered with

groined arches, are skillfully constructed like the other vaulted work, but the nave alone is covered with wood. Each bay is marked by an engaged column rising in a single shaft from the ground to the upper cornice, made to carry the main beams of the open timber roof.

The nave is formed of two rows of arcades rising one above the other, resting on a cluster of engaged columns or pilasters which compose the piers. The lower gallery is covered with ribbed vaults and the higher gallery with an open timber roof. Above the arcades a row of arches decorate the upper part of the nave and form with the exterior wall a narrow passage which passes entirely around the building.

(To be continued.)

## Steam Plant for Isolated Electric Light Plants.\*

BY PROFESSOR JOHN W. SWEET.

IT is evident that the growth of the electric light business was never so healthy as at the present time, and, further, that its introduction in new business buildings is the rule rather than the exception, and that money can be saved by making proper provisions for the plant before the plans of the buildings are adopted rather than after they are completed.

The two most prominent difficulties we have to contend with are height in the basement for the boilers, and length in the room appropriated to the engine and the dynamos. So far as it is left for the architect to decide, where it is not possible to get height for boilers, the best way out of the difficulty is to use high-pressure small boilers, and more of them.

The same tactics may be adopted in the case of boilers as have overcome the difficulties in engines. The small, high-speed engine renders a small space available, and so with small, high-pressure boilers. The objection raised against them is the danger from explosion, but this is imaginary, for, other things being equal, the 36-inch boiler is just as safe at 120 pounds pressure as the 72-inch at 60 pounds; but other things are not equal; more care and better material is almost invariably used with the high than with the low pressure generator. Another point: the high-pressure boiler is the more economical, for the reason that it takes nearly a thousand units of heat to get the steam to atmospheric pressure, after which it only takes about twice as many units to get the 120 pounds that it does the 60 pounds, out of which we can get twice the work.

The argument is advanced that should a boiler explode the damage would be much more serious with a high pressure than with a low, but this, I imagine, is not true to any extent. The large boiler

at 60 pounds and the small one at 120 pounds would either be bad enough; but it is not necessary to take that into consideration, for there never was an explosion that was not preventable, and with modern safety appliances and a careful engineer, explosions may be classed as a remote contingency.

In this latitude, where buildings have to be heated by using the exhaust steam for the purpose, the cost of running electric lights is not very great; or, if preferred, one may say the cost of heating is not very great. Some get the notion that because in cases where the system is not properly arranged and a pound or two of back pressure is put upon the engine, that the use of the exhaust costs as much as it comes to. But when one considers that when steam is exhausted at atmospheric pressure it contains 960 units of heat, and a two or three pounds pressure not over 970, the two or three pounds of back pressure do not amount to much. When there remains this vast amount of heat in exhaust steam, it is the height of folly to throw it away, for with a properly arranged system even the two or three pounds of back pressure may be avoided.

In placing a plant in an old building, lack of chimney capacity is often met with, and this in planning new should be considered. A round chimney flue is better than a square one, but not easy to deal with running through the upper stories; a hexagon or octagon is also better than a square, and it would seem that the excessively large chimney breasts could be made less objectionable if three sides of an octagon or hexagon than a square.

My impression is that 60-horse power should be about the limit in size of boilers used, and if more power is wanted, double or triple the number. Twelve feet in height is the lowest that will do for the common tubular sort, and fifteen feet is better.

It is better to start the foundations around the boiler room down for that height, than start level with the balance of the building and undermine afterward; and it is best to make room for four square feet of chimney flue for one boiler, six square feet for two, and eight square feet for three. How the coal is to be got to, and the refuse away from, the boiler; where the water is to come from, where the pumps and heater are to set, and where the exhaust steam is to go, when not wanted for heating, are points to be considered.

In the beginning of the electric lighting business (which is scarcely more than ten years ago), there were so many things that we did not know that poor lights were not always attributed to the proper cause. When the real cause was not known it was easy to fancy it due to the engine, and while only to a certain extent was this true, it led to the construction and introduction of the high-speed small engine, because it was easier to properly govern a high-speed engine, and later because it seemed desirable to put electric light plants in places too small to admit the large motors. When it was supposed that more perfectly governed engines were a necessity, they were produced, and probably what constitutes proper governing and how it can be accomplished is far better understood than ten years ago; so that there are now quite a number of engines built that meet the requirements in the main. Similarly, the dynamos, lamps and systems of wiring have been improved, and quite a number of companies are erecting plants that satisfy the demands of their customers.

A first-class large slow-speed engine is more economical in steam consumption than a small high-speed one of the same power, but that is not claiming that all slow-speed engines are more economical than all high-speed ones, or that because an engine is more economical in steam consumption it is the most economical to use, for there comes in the question of first cost, the cost or value of the room it occupies, the cost of attendance, oil and repairs. Another point in electric-lighting—the question of an engine always going when you expect it to, is of vital importance.

For nearly all isolated plants the small high-speed engine is almost a necessity, on account of room, and in most cases the amount of power required is variable, for which reason a divided plant—that is, two or three boilers and two or three engines—is often more satisfactory than a large one.

Where two engines and two boilers will just supply the maximum demand, another boiler and engine practically duplicates the plant; with three there is always one in reserve, and with a divided plant, as the demand for lights falls off, one of the two engines may be shut down.

The engines and dynamo should be on the ground, for, unless by the most expensive provisions they cannot be put upon the upper floors and be satisfactory; and as the basement is the least valuable room and the best for the purpose, it is not good policy to cater to the notion that some have, that they would like to make a show piece of their plant.

Making electric light is business, and it should be so considered. Many times it is necessary to put in a plant where the room is so short that the belt has to run back past the engine. This is bad, not only on account of the inconvenience and danger, but because it puts all the work on the upper half of the belt, allowing the lower half to sag away from the pulleys, reducing its driving power, and ends in its dragging on the floor and working badly.

For an isolated plant of from two hundred and fifty to eight hundred incandescent lamps, a room from 25 to 35 feet in length should be set apart, if possible, and if for one engine and two dynamos, 12 or 18 feet in width will answer; if two engines, 16 to 20 feet, depending somewhat on the kind of engines and dynamos used.

Usually it is possible to get the advice of a competent boiler maker and engine builder when making the plans, whether their special product is used or not.

To what extent architects are consulted as to the selection of the various parts of a plant, I do not know, but presume to some extent, and if so consulted, it stands them in hand to be prepared to give satisfactory replies, or, at least, avoid so far as possible making mistakes.

\*Paper read by Professor John W. Sweet, of Rochester, before the convention of the Western New York State Association of Architects, October 8, 1899, at Syracuse, New York.



In regard to boilers, there are many new sorts, but mostly the new kinds are so tall as to be inconvenient in basements, and none, so far as I know, have shown such marked superiority over the common tubular sort as to supersede them.

Tubular steel boilers of the best material, moderate in size and properly set, are reliable and satisfactory. Kitts', or some other reliable high and low water alarm, with a good safety valve, makes the boiler safe, if in the hands of a temperate, competent man. Either two pumps, or one pump and one injector, for feeding are advisable. A good heater is such an element of economy that it should be included. Every pipe connecting either steam or water should have a stop valve and union in it. If two or more boilers, there should be a safety valve to each. If steam pipes are long they should be one size larger than the size the engine calls for, and thoroughly jacketed.

Boilers and engines vary in price, the same as clothing. If the low price is insisted upon, the maker is going to put in cheap stock and do poor work.

The man who furnishes the poorest of all is the man who offers the largest bribe, for the bribe is not coming out of his pocket. He is either going to take it out of the goods or out of your client, and though he may try and ease his conscience by calling it a commission, it is a bribe all the same. As it is always the best goods that command the best prices, so it is safe to conclude that the price is a measure of quality.

In many places quiet running of the engine and dynamo is essential, and with noisy engines various devices, such as sand bed or layer of cork, have been used; but the engines should run without noise, and the belts as nearly so as possible. There are other ways to drive without belts, that take less room and that ought to be less noisy. A cut gear with a leather (not rawhide) pinion, or the plan recently introduced of putting the dynamo pulley within about one-eighth of an inch from the engine pulley and running a leather hoop between the two; I have known this device to work well in other places, and fancy it is feasible. But in laying out the room for a plant, it is best, if possible, to give the full length required for a belt, and this simply as a matter of economy.

As there are no restrictions, however severe, that will prevent an architect, if he has the genius, from making a good-looking building, so, too, with mechanics, all things are possible. But when special boilers, engines, or dynamos have to be designed and constructed to fit odd places, the cost is increased immensely.

To better understand why it is desirable to have the plant in the basement, it is only necessary to consider one or two of the difficulties encountered in high speed. In the hundred-horse power engines the weight of the reciprocating parts varies from one-fourth to a half ton. This weight has to be started and stopped from four to five hundred times a minute, and yet while reaching a maximum velocity of from 900 to 1000 feet a minute. Or to consider it in another way, we have from 500 to 1000 pounds weight starting from rest, and in going 9 inches in the one-sixteenth part of a second, acquires a velocity of a thousand feet per minute, and is then in moving the next 9 inches brought to rest; and to keep on doing this over and over for minutes, hours, days, and week after week silently requires material, workmanship and a foundation.

As action and reaction are equal, to start and stop this weight must bring a strain on the framing and foundation were it not for counter balancing, which is nothing more than putting an equal weight to the opposite side of the fly wheel of the engine.

If this be correct, it will fully neutralize the shaking tendency which would otherwise be destruction to the building; but the counter weight does not obviate all the difficulties, for when the tendency to shake the engine frame endwise is fully neutralized, the same force has an equal tendency to shake the engine frame up and down.

On the upper floor it is hard to resist either tendency, whereas on the ground one has the earth as an anvil, which seems best able of all things to stand it.

The danger of fire from the boilers can best be fortified against on the ground floor, and the tremble and noise from dynamos and belts are less troublesome.

It may be interesting, though of no value, to consider for a few moments the problem of engine regulation or governing. It is required of a machine capable of developing one or two hundred horse power that it shall make 150 or 200 revolutions per minute, and not go two turns slower if fifty per cent more work be imposed upon it, and not over two turns faster in a minute if nine-tenths of the load be thrown off. This correction is accomplished by admitting more or less steam to the engine, which would seem simple enough, but remember it is to be done by a machine already in motion, and by itself.

Were it possible to construct a valve steam tight, that would move without friction and had no weight, the problem would be simple, but as no such valve exists the nearer one approaches it the easier the problem, and the more powerful the controlling mechanism and the freer it is from friction, the more nearly can perfection be approached.

The true test of governing is not the one usually employed—the general average of one minute with another, but at the maximum velocity of any one instant of time compared with the minimum at any other instant.

In conclusion, the isolated plant on the ground floor; small high pressure boilers with all the conveniences for operating, and all safety appliances that are reliable; engines that can be relied upon, or one in reserve; proper foundations, with plenty of working room when possible, and dynamos of standard merit in duplicate.

I have not referred to electric light plant for central stations, not because it may not be of interest or value, but because it is a subject better understood by the electrical engineers.

### Third Annual Meeting of the Western New York State Association of Architects.

THE third annual and sixth regular meeting of the Western New York State Association of Architects was held at Syracuse, in the rooms of the Business Men's Association, October 8 and 9.

The meeting was called to order at 2:45 P.M. by President James G. Cutler, of Rochester, and the roll was called by Secretary William Worth Carlin, of Buffalo, and the following members were present:

Jacob Agne, of Utica.	Otto Block, of Rochester.
Geo. W. Baxter, of Syracuse.	E. M. Buell, of Syracuse.
James G. Cutler, of Rochester.	J. R. Church, of Rochester.
C. F. Crandall, of Rochester.	W. W. Carlin, of Buffalo.
Noah Dillenbeck, of Syracuse.	John Elliott, of Syracuse.
Fred H. Gouge, of Utica.	J. P. Johnston, of Ogdensburg.
D. D. Kieff, of Watertown.	J. H. Kirby, of Syracuse.
B. T. Lacey, of Binghamton.	Asa L. Merrick, of Syracuse.
C. Francis Osborne, of Syracuse.	J. H. Pierce, of Elmira.
Louis P. Rodgers, of Rochester.	J. A. Randall, of Syracuse.
H. G. Tuthill, of Corning.	W. W. Taber, of Syracuse.

J. H. Kirby was called to the chair by President Cutler, who then delivered the following address:

Once more by reason of your kind indulgence, far too little justified, I am permitted to open the proceedings of the society with a few words of greeting. The year now closing has been an eventful one in our own history, but only because of the fact that everything in the way of association work has been overshadowed and dwarfed by the conceded importance and interest of the changes in the National Society now making and to be consummated at the Cincinnati convention on November 20. It is a great step in advance which the profession will take in completing the unification of the National societies, and one of which the consequences will be far-reaching and valuable. No one, I am sure, has a higher regard than I entertain for the grand work done by the pioneers in American architecture, who first presented to the country the idea of a professional status for architects and labored for its establishment and recognition and organization of the American Institute of Architects. That this name, known and honored wherever American architectural genius is understood, is to be preserved to the new National Society, which will commence its work next month, is a source of sincere gratification to us all. But the parent society, started when New York and Boston contained all that could be termed architecture in the United States, never expanded to an adequate conception of its relation to the entire country, such as its name implied, and naturally the men whose genius enabled them to build the noble structures which adorn many of the Western cities became restive under a system national only in name, which conceded them membership in the recognized professional society, but practically without voice in the management of its affairs. This feeling led to the organization of the Western Association. It is not my purpose to discuss its history—you are all familiar with it—many of you helped to make it. Cordial relations existing between the Institute and the Association from the organization of the latter, fostered by the controlling minds in both societies and intensified by the election of many members of the Association to fellowship in the Institute, and of Institute members to the Association, perhaps assisted by a slightly increasing conservatism, which experience in the actual working of a professional society developed in the Association, have culminated in consolidation, and within a month the profession of architecture in the country will be represented by a truly National Institute of Architects, having about seven hundred members, and which will stand for the active working body of practitioners. I wish to leave for my successor, and for those who will take up from this time the management of the society, one suggestion drawn from the experience of the National organizations.

While I believe our Association is the largest of the state societies, it remains true that the eastern part of the state is not represented in it, and it is also true that the New York City Chapter of the Institute has a membership about as large, and containing many names of national—some of world-wide reputation. We doubtless represent our own territory as well as the other state societies do the metropolis, and it may be that the new Institute will decide that New York state is too large to be well covered by a single state association and will desire the continuance of the two organizations. However this may be, my hope is that the adequate representation of the entire architectural profession of the state shall always be our first consideration, and the maintenance of our own organization always a secondary matter. That is, I should like to say, in the November convention, that if a solid society covering the Empire State can be arranged for, and is thought to be necessary for the best interests of the profession, we are ready to join our friends in the eastern part of the state in such an association, and will, if desirable, dissolve our society for that purpose.

I thank you for the attention with which you have always listened to my attempts at address making, and for the uniform courtesy and kindness which have marked your reception of my imperfect discharge of the duties of the office to which you have twice chosen me, and from which I am now about to retire. We have reason to know that a meeting at Syracuse will be pleasant, and I have no doubt it will also be of advantage and interest to all.

On motion of C. C. Colton, the association extended a vote of thanks to the president for his very able address. President Cutler then resumed the chair.

The minutes of the fifth regular meeting of the association, held in the Chamber of Commerce at Rochester, commencing February 5, 1889, were then read by Secretary Carlin.

President Cutler: If there is no objection, the minutes will stand as read. The report of the treasurer is now in order.

Treasurer Block: Just prior to my coming here I thought I could finish my report, but was unfortunately detained, so I could not do so. I will have to make my report as I remember the details of it. There are fifty names on the books, excepting the names of those who have been elected during the past month. All the initiation fees and dues have been paid with the exception of two. There is in the treasury about a hundred and fifteen or twenty dollars. I am sorry I was not able to prepare my report in writing.

President Cutler: It is usual to refer the treasurer's report to an auditing committee, and perhaps we had better go through that form in this case. I will name as that committee, Mr. Pierce, Mr. Colton and Mr. Gouge. The report of the Executive Committee is in order.

Secretary Carlin made the following report for the Executive Committee:

The Executive Committee have been unable to get a full meeting, owing to the absence of two of its members, and it has been deemed advisable to submit a very general report of the doings of the association for the past year. There has been no particular business before the Executive Committee, except the election of the following members: H. G. Tuthill, of Corning; Jacob Agne, of Utica; A. I. Simmons, of Utica; H. W. Beardsley, of Cortland, and Wellington W. Taber, of Syracuse. This brings our membership up to fifty-five. The reason for the seeming smallness of this report has been explained by the address of the president. The committee have also to report the following proposed changes



in the constitution and by-laws. In view of the fact that it will probably be necessary to reorganize this association after the organization of the newly created Institute, and with your permission, I will read the clause governing local associations, to show why this will be necessary, as an argument in favor of making the proposed change in the constitution and by-laws:

"The Institute shall encourage the formation and continuance of state and local associations, which shall be known within the Institute as chapters. These bodies shall continue, and shall be organized under charters from the Institute, which may be granted by the Board of Directors, and which shall clearly define the limits of territory and jurisdiction of the bodies existing or to be formed. The general formation, government, standard of membership and form for election of members in these bodies shall be uniformly prescribed by the Institute, but each body shall have the power to make such further rules and by-laws as it may deem best, provided that no action shall be taken which shall conflict with the constitution and by-laws of the Institute. No person within the territorial jurisdiction of one of these bodies shall be elected a member of the Institute until after he shall have been elected a member of the subordinate body; but persons outside of such jurisdiction may be elected as provided by the by-laws."

In view of this fact the Executive Committee have thought best to recommend to the association that the regular meetings of this association shall be confined to the annual meeting. The by-laws already provide that a special meeting may be called at any time, if deemed advisable by the Executive Committee, by mailing a notice of the time and place of the proposed meeting to each member, at least ten days previous to the date mentioned in the call. And we would also recommend that the second section of Article III, under the head of Executive Committee, be stricken from the by-laws, as it makes it obligatory upon the Executive Committee to meet once each month, whether they have any business to perform or not. The Executive Committee would respectfully recommend that those changes be made in the by-laws.

President Cutler: If there is no objection the report will be referred to a committee appointed by the chair. The committee will be Mr. Colton, Mr. Church and Mr. Buell, to consider the Executive Committee's report.

The president then introduced to the association Professor Sweet, who had kindly consented to read a paper on "Steam Plant for Isolated Electric Light Plants." (Printed on page 50.)

On motion of Mr. Pierce, the association tendered to Professor Sweet a vote of thanks.

President Cutler: The next business before the association is the election of officers. In accordance with the usual custom, I will appoint two nominating committees. The first one will be Professor Osborne, Mr. Block and Mr. Buell. The second one will consist of Mr. Johnston, Mr. Kirby and Mr. Lacey; and Mr. Gouge and Mr. Carlin will please act as tellers. The entire board of officers is to be voted for, president, vice-president, secretary, treasurer, and members of the Executive Committee.

Professor Osborne, on behalf of the first committee, reported as follows:

For president, James G. Cutler; for secretary, W. W. Carlin; treasurer, Otis Dockstader; first vice-president, George W. Baxter; second vice-president, J. P. Johnston; Executive Committee, Asa L. Merrick, Jacob Agne, and the first three officers named.

Mr. Johnston, on behalf of the second committee, reported as follows:

For president, James G. Cutler; secretary, W. W. Carlin; treasurer, George W. Baxter; first vice-president, J. H. Kirby; second vice-president, J. R. Church; members of the Executive Committee, J. H. Pierce and J. R. Porter.

In the balloting which followed, President Cutler and Secretary Carlin were unanimously reelected. For treasurer, fourteen votes were cast for Mr. Baxter and six for Mr. Dockstader. The election of Mr. Baxter was made unanimous. Professor Osborne was likewise elected first vice-president. For second vice-president, Mr. Johnston received eleven votes and Mr. Church ten. Mr. Johnston was declared elected. For members of the Executive Committee, J. H. Pierce and Jacob Agne were elected.

President Cutler: It is with a sense of considerable embarrassment that I find myself reelected to the office of president. I came here fully expecting to congratulate my successor, but I don't believe that any man has a right to refuse an office which is tendered to him by the unanimous vote of his associates, and I therefore, with considerable reluctance, accept the office, and pledge you my best efforts for the ensuing year, and you must allow me to add a word of thanks for the very unusual compliment you have paid me in reelecting me to this office for the second time. (Applause.)

Mr. Pierce: The committee on the report of the treasurer, after examining all the papers that are at hand, have found them to be correct as far as they can see, and they recommend the adoption of the report of the treasurer.

The report was accepted.

President Cutler: Is the committee on the report of the Executive Committee ready to report?

A general discussion relative to changing Article I of the by-laws as recommended by the Executive Committee resulted in correcting the by-law to read: "The regular meeting of this association shall occur on the first Tuesday in October of each year," and giving power to the Executive Committee to change that date when necessary. It was also ordered that the Executive Committee be instructed to call a second meeting in the course of the year at such time and place as may seem best to them, and in the article referred to by the Executive Committee the words "at least once a month" were struck out and "in its own discretion" substituted.

President Cutler: The report of the committee on the bill to license architects is now in order.

Mr. Carlin: The committee has not held a regular meeting, except an informal one at the hotel, since the meeting held at Rochester some time in the summer, at which this draft of the bill was prepared and forwarded by a member of the committee to Professor Collin of Ithaca, with a request that he would go through the bill and make such suggestions as in his judgment were necessary to make it constitutional, and leave it in such a shape that it would be approved by the governor, if passed; and if it is the wish of the convention I will read the bill as it was then prepared, and then Professor Collin's suggestion.

The bill as prepared by the committee in charge, which consists of J. G. Cutler of Rochester, W. W. Carlin of Buffalo, J. H. Pierce of Elmira, and Charles E. Colton of Syracuse, is as follows:

#### BILL TO REGULATE THE PRACTICE OF ARCHITECTURE IN THE STATE OF NEW YORK.

SECTION 1. No person shall practice architecture in this state who shall not have attained the age of twenty-one years, and that hereafter no person shall pursue the business or profession of architecture in this state, except in accordance with the rules and regulations herein described.

SEC. 2. There shall be established and created in and for the State of New York a board of architects, constituted as follows: One member from the faculty of Columbia College, one from the faculty of Cornell University, two from the Western New York State Association of Architects, and two from the New York Chapter of the American Institute of Architects.

Within sixty days after the passage of this act, the presidents and secretaries shall call meetings of the members of these associations, and at such meetings there shall be designated by ballot four from the Western New York State Association of Architects, and four from the New York Chapter of the American Institute of Architects, all reputable architects doing business within the said State of New York, each of whom shall have had not less than ten years' experience as a practical architect. Notice of such designation and the names of the parties so designated shall then be filed with the governor of the State of New York, and from the persons so designated and from the faculties of the colleges hereinbefore named, and within thirty days from the date of filing the names he shall appoint the members of the board of architects as hereinbefore provided. The members of the board appointed under this section shall hold office for the term of one, two, three, four, five and six years, respectively, and until their successors shall have been duly appointed and qualified. The architectural societies hereinbefore mentioned shall hereafter designate three reputable registered architects doing business within the State of New York, from which number the governor shall fill the vacancy annually occurring. In case of death, resignation, or removal from the state of any member of the board before the expiration of his term of office, the remaining surviving members of the board shall fill the vacancy from the list of names last submitted, and the person so appointed shall be a member of the board for the remainder of the term of his predecessor.

SEC. 3. It shall be the duty of the members of the board of architects created by this act, immediately after the receipt of the notification of their appointment, to appear before the clerk of the Supreme Court and make and subscribe to an oath properly and faithfully to discharge the duties of their office, and within ten days after the receipt of the notification of their appointment they shall meet and organize by the election of a president and secretary, who shall hold their office one year, and shall thereupon publish the notice of their organization in the architectural journals circulating in the state, giving full and explicit information to whom applications for registration and licenses must be addressed. The members of the board shall serve without compensation, nor shall any of their expenses become a charge against the state. The term of office of the members first appointed shall be determined by lot.

SEC. 4. The board shall hold meetings at least once in six months, and as much oftener as the business of the board may require. The secretary shall procure a seal and books and keep a record of proceedings of all meetings and give each member of the board not less than five days' notice of each meeting. Five members shall constitute a quorum. It shall be the duty of the board to examine all persons applying for examination, and to grant licenses to such persons as may be entitled according to the provisions of this act. Licenses granted by legally appointed boards of architects outside of this state may be recognized by this board. They shall keep a record of all their proceedings, and such records are hereby declared to be public records. The secretary of the board shall be ex-officio custodian of such records, and copies of such records, certified by the president and secretary and sealed with the seal of the board, shall be admissible as evidence in all courts of this state.

SEC. 5. No person shall practice the profession or pursue the business of an architect without a license from the board of architects. Any person desiring to pursue such occupation shall apply to the board for license, and thereupon the board at some regular or special meeting shall proceed to examine the applicant as to his qualifications, with special reference to the construction of buildings, strength of materials, laws of sanitation as applied to buildings, and the ability of the applicant to make practical application of such knowledge in the ordinary professional work of an architect. If such examination is satisfactory to a majority of the board, a license shall be issued to the applicant under the seal of the board, authorizing him to practice the profession of architecture within the limits of this state. All licenses to architects shall be recorded in a book provided for the purpose by the clerk of the county in which the applicant resides.

All persons who shall be at the date of the passage of this act engaged in the practice of the profession in this state, shall be entitled to a license without examination on the payment of a fee of \$5.

SEC. 6. All licenses shall be subject to revocation by the board of architects for gross negligence, recklessness or dishonest practices, but before any license shall be revoked the holder thereof shall be entitled to at least ten days' notice of the time and place for the hearing of the accusation against him. He shall also be entitled to process for his witnesses, and to be heard by himself and his counsel in open public trial, and no license shall be revoked except by the unanimous vote of all the members of the board.

SEC. 7. If any person shall pursue the business or occupation of architecture in this state, or shall advertise or put out any sign, advertisement or cards designating himself as an architect, without first obtaining a license therefor in accordance with the provisions of this act, he shall be deemed guilty of a misdemeanor, and upon conviction, he shall be fined not less than \$100 nor more than \$500. No person shall be entitled to a license as an architect who is directly or indirectly concerned in any contract for work or materials in connection with the building business, but nothing herein contained shall be construed to prevent any person in this state from planning or supervising the erection of his own building, nor shall the provisions of this act apply to architects from other states who may desire to compete for some special building, public or private, and who may visit the state in person for such special purpose, nor shall it apply to students or employees of licensed architects within this state acting for and by the authority of such licensed architects.

SEC. 8. The fee for each license shall be \$20, which shall be paid to the board of architects upon delivery of the license, and the fund thus accrued may be expended by the board for the payment of their traveling and other expenses. An itemized account of such receipts and expenditures shall be kept, which shall be reported to the governor thirty days before the session of each legislature.

On motion, the report of the committee on the bill was received and the discussion laid over until next session. In the meantime the secretary was instructed to have the bill printed so that each member could have a copy.

President Cutler called for the report of the Committee on Competitions.

Mr. Pierce: The committee is composed of Mr. Kent, Mr. Block and myself. We have had some discussion of the matter, but, considering the fact that the society may be changed in its form and make-up, perhaps by the consolidation of the two societies, and our inability to prepare anything that would meet with general approval and acceptance, we have let the matter go and have nothing to report, except we think any man is foolish who will enter into a competition. (Applause.)

Mr. Colton: As I understand, there may be some invitations given to the association to make some visits in the morning, perhaps it would be well to make the hour of the meeting later than nine o'clock, perhaps as late as half-past ten. I have understood that we may have



invitations to visit various objects of interest, and then we would have to meet at some later hour.

Professor Comfort, after inviting the members to visit and inspect the University building, said :

I congratulate the association upon the great success it has secured. Your association entered upon a field which needed to be occupied, and which you are occupying with such success that I think there is every reason for you to be encouraged; that you will make a very marked impression upon the art taste of the public, and, perhaps upon our state at large. I listened with very great interest indeed to the reading of the bill which you propose to send to the legislature, and I shall regret if any engagements keep me from being present at the discussion. I shall endeavor to arrange my plans for the morning so as to be here, if possible, for I consider that one of the most important movements that could come before the American public. There is the greatest need, in my opinion, of the association of architects and the artistic profession asserting itself before our patronizing public. The condition of our state capitol and of many other public buildings, as well as the condition of many private buildings, leads us to see how very necessary it is that some definite supervision, such as exists in all continental countries on a very large and careful scale, and also, to some extent, in England, should take place in our country. I spent the summer mostly in New York City, and I was impressed with the discussion of the great exposition which was agitated there, not only in the prints but by private parties and with gentlemen of business and of culture in the city. I was impressed with the fact that New York City and America has got to make itself over, and I believe that if that exposition takes place in New York it will be the induction of a new era of enterprise and of building and of scientific life in our country. I think the cultured people of New York see that they have no city at all; that it is not a city; that it is simply a collection of streets and of houses and of manufactories; that in the essential things that make a fine city New York is utterly lacking, in fine avenues, fine public buildings, in monumental works—those things which make a city fine; and the *Evening Post* has taken up this line so far that it has said that New York is not fit to receive an exposition, and that it ought, out of regard for its own good name, to pass the occasion by until it is ready and in shape to properly welcome the country and the world to its borders as the great metropolis, referring to the very bad condition of the pavements, to the condition of the walks, to the lack of great thoroughfares, to the lack of fine public buildings. And I think we may easily state that, with the exception of thirty large, fine costly buildings that are built in the lower part of New York City, all the rest of the city is doomed, and must be reconstructed within the next fifty years; and the reconstruction of a city like New York certainly should demand that there should be the greatest foresight and the broadest views in the plans on which this reconstruction shall be made. I think there should be a thoroughfare 150 feet wide cut straight from back of the old city hall, to Union Park, for example, and fronting on the thoroughfare should be placed the new municipal buildings and other public buildings of such a nature as the size of New York as the great coming metropolis of the country shall demand, and with the reconstruction of New York the spirit of reconstruction is going to extend to all of our other cities, and Syracuse and Buffalo and all the older cities of our country are going to feel the wave. Just as the park period in the development of cities, which took place during 1850, 1860 and 1870, a period of twenty years, did its work in great cities, so a similar period of scientific reconstruction will pervade the metropolis, and will be copied by all the cities throughout our country. In this I see no profession in America which has such a magnificent outlook before it as lies before the profession of architecture. I think whoever is a qualified, strongly equipped and worthy architect has the country almost at his feet from now forward, and I think there is a better outlook for your profession than there is for any other of the learned professions in our country.

I did not intend to dwell so long upon these remarks, and will close by again inviting the association to visit the university and see the buildings. \* \* \*

Mr. Carlin : I would move you that this association accept the very kind invitation of Professor Comfort and the Syracuse architects, and return its vote of thanks to Professor Comfort not only for the invitation, but also for the very comforting remarks he has thrown out regarding our profession. I also move that when we adjourn we adjourn to meet at 10:30 o'clock.

The meeting adjourned.

#### SESSION OF OCTOBER 9, 1889.

The meeting was called to order at 11:15 A.M. by President Cutler, the license bill being the order for discussion.

President Cutler : I think it is desirable that every one of us should express his views in regard to the bill. As this is an adjourned meeting for the purpose of transacting this particular business, unless there is objection, we will suspend the usual order of business, and, after the calling of the roll, will proceed at once to an informal discussion of the bill which has been printed in the morning paper.

The roll was then called by Secretary Carlin, to which the following answered : Agne, Block, Baxter, Buell, Cutler, Church, Crandall, Colton, Carlin, Dockstader, Dillenbeck, Elliott, Fay, Gouge, Johnston, Kieff, Kirby, Lacey, Merrick, Pierce, Randall, Tuthill and Taber.

President Cutler : As all who were present at the Rochester meeting will remember, this bill was presented in the first instance at that meeting, and referred to a committee, which has been at work on it ever since. It is far from perfect in its present form, but it will be enough for me to suggest that it is a measure designed not so much for the benefit of architects as for the protection of the general public. Even if we were inclined to do so, and I am sure we are not, it would be impossible for us to obtain any legislation preventing the practice of architecture by any persons who are so engaged. All that we seek to accomplish by the passage of this bill is to provide that those persons who enter the profession after its passage shall have given satisfactory evidence before a board of examiners that they have prepared themselves for the responsibility and obligations which they are undertaking, by a proper course of study, and that the public health and life, and safety of all kinds, will be provided for in the structures which they may design. Certainly, this measure is one which should be demanded, and will be demanded, undoubtedly, by the public, as a measure of public safety and protection, as soon as the bill is perfected and comes before the public for discussion. I shall be glad now to hear from every member of the association present, and in order to make the discussion as informal as possible, I will call upon different members, one after another, with a view of drawing out any suggestions which we may obtain in that way.

The bill was discussed at length by each member present, and at the close Mr. Colton moved that the bill be referred back to the committee with power to act. Mr. Dockstader seconded the motion.

President Cutler : If there is nothing more to be said I will put the question to refer the matter back to the committee with power to

confer with the New York Chapter and employ counsel for the perfection of the bill.

The motion was carried unanimously.

Mr. Gouge : There is one matter I would like to speak about. I think that at the Rochester meeting there was a resolution passed indorsing the Standard Contract and recommending its use by the members of this association. I have had some talk with different members of this association, and made some inquiries, and find that the majority of those with whom I talked are not using this contract. Now, it seems to me that if this contract is a good thing and there are no flaws in it, that it should be used generally by the association. Otherwise, it is practically of no effect. If it is not a good thing, I think the sooner we find it out and correct it the better. Of course, it is impossible to offer a resolution or anything like that compelling anybody to use the contract, but at the same time I think if members of the association and others should have their attention called to this again and generally use the contract, it would be very much better for us and for those who may build. There is another point I would like to speak about, and that is this, I have attended a good many conventions of the Institute and quite a number of this association. I have always been very pleasantly entertained, and never have had the opportunity to reciprocate, and I would like to say that if the Executive Committee see fit and think it proper to call the next meeting at Utica, we should be very happy to see you, and will do what we can to entertain you. We have not as much in the architectural way to show you as they have here or in other cities, but what we have there, if you care to see it, we would be very glad to show you. I think if there could be a resolution passed recommending the members of this association to use the uniform contract, that it would be an excellent idea.

President Cutler : Such a resolution is already on the books. It was passed at Rochester, and of course it is only suggestive, and it cannot be made any more. We passed a resolution recommending the use of the Standard Contract; it was passed unanimously; but the question of how far members will comply with the resolution and act upon it is a matter for their own individual volition. I think your remarks are very pertinent and suggestive. It would be well if the contract were more generally used, but I do not see how we can take any further action.

Mr. Gouge : I think there is one clause in the contract which might be better; it is with regard to the time of finishing the work by the contractor. It states a definite time. Now with regard to contract being divided, and in some cases it is impossible to do, a length of time can be stated, if necessary, in making the contract, and in that case this blank would not answer the purpose, so far as that is concerned. I think that if the contract were changed slightly in that regard it would be a very good thing.

Mr. Carlin : I would move you that a vote of thanks from this association be extended to the press of Syracuse for courtesies extended by them; to the Business Men's Association of Syracuse for the use of these rooms, and to the Syracuse University for the courtesy with which we were shown through the buildings this morning by Professor Comfort, and also the Syracuse architects for courtesies extended to this meeting.

The motion was carried unanimously by a rising vote.

Mr. Colton : With regard to our future meetings, I think a matter of considerable importance is in regard to the furnishing of drawings. Heretofore we have all been dilatory about it, and left it entirely to the local architects of the city in which we have our meeting to furnish drawings, and I think that in the future there ought to be a change in this respect. We have a membership of fifty-five or sixty in this association, and I do not see any reason why each one should not furnish one or more drawings as an exhibit at our annual meetings, and I move you that the president appoint a committee, to be a standing committee, to ask for drawings, photographs, sketches and other illustrations at our annual meetings from all the members of this association.

The motion was seconded and carried.

President Cutler : I will appoint as such committee Mr. Kirby of Syracuse, Mr. Wicks of Buffalo, Mr. Gouge of Utica, Mr. Thomas Nolan of Rochester, Mr. Dockstader of Elmira, and Mr. Lacey of Binghamton, as a standing committee on an exhibition on architectural drawings for the year.

The meeting then adjourned sine die.

#### The Clark Medal Competition.

The adjudicating committee upon the Clark Medal Competition drawings have made the following report :

To the Chicago Architectural Sketch Club : CHICAGO, October 15, 1889.  
GENTLEMEN,—The undersigned committee on competition of the Clark medals, beg leave to report as follows :

It was their endeavor, in making the programme for the competition, to impart to the same an element of responsibility and a character approximating as nearly as possible to the competitions for the work actually to be done by the draftsman in his future career. They regret to have found by the limited number (five) of designs submitted, that the draftsmen of the United States are not disposed to attempt the solution of problems of a practical nature.

After careful examination of the designs submitted, the committee award first prize to the plans marked "Jan-I-Tor," the work of A. Beatty Orth, of Pittsburgh, Pennsylvania, and the second prize to the plans marked with an "Ace of Spades," the work of Claude Fayette Bragdon, of Rochester, New York. In making this award, your committee endeavored to place itself as nearly as possible in the mental attitude of a capitalist about to make an investment in a building of the kind called for in its programme, and has based its decision first, upon the qualities of the plan as that of an income producing property under the conditions of the programme, and second, upon the general design of exterior and draftsmanship.

Respectfully submitted,  
LORADO TAFT,  
HENRY IVES COBB,  
N. CLIFFORD RICKER,  
D. ADLER. } Committee.



## The Official Programme of the Joint Convention.

THE result of the large amount of labor involved in preparation for the joint convention for consolidation of the American Institute of Architects and the Western Association of Architects is issued in circular form by the committee in charge, and will stand as the programme of the convention. As another journal has published an uncorrected draft of this circular, it should be observed that the corrected document is dated November 20, 1889.

A. I. A. AND W. A. A.

In accordance with the preliminary notice of September 19, the convention of the American Institute of Architects and Western Association of Architects, for the consummation of consolidation, will be held at the Burnet House, corner of Vine and Third streets, Cincinnati, Ohio, opening on Wednesday, November 20, 1889.

### FIRST DAY.

The Western Association of Architects will be called to order at 10 A.M., precisely, by its president, Mr. W. W. Carlin, who will make the annual address, to be followed by the presentation of reports.

The same routine will then be pursued by the American Institute of Architects, its president, Mr. R. M. Hunt, making the annual address.

The reports of both societies will be held for reference to the incoming board of directors.

The proposed new constitution and by-laws will then be presented for discussion and adoption.

Immediately after adjournment all members will lunch at the Burnet House as guests of the Association of Ohio Architects, and a drive will then be taken through the suburbs. Should the weather be unsuitable the drive will be postponed until the next day.

There will be no business transacted during, nor stated entertainment provided for, the evening.

### SECOND DAY.

Opening at 10 A.M. precisely.

Further discussion of the proposed constitution and by-laws; and, on adoption of the same, the convention will, in such manner as it may determine, proceed to nominate and elect the new board of officers, etc.

Miscellaneous business and the reading and discussion of papers will be in order during the convention, but not to take precedence of the above mentioned order of business.

Lunch as on previous day.

The Burnet House has been selected as the headquarters for members attending the convention, as well as for the place of meeting. A uniform rate of \$3.50 per day has been made by the management, who have guaranteed that first-class entertainment shall be given.

Immediately on arrival at headquarters each member will please register and receive a souvenir button to wear during the convention.

Those intending to be present will please notify Mr. Crapsey at Cincinnati, so that the local committee may know how many to provide for.

On the evening of the 19th (the day preceding the convention), a reception will be given by the Cincinnati Architectural Club in Pike's Hall, where the national exhibit of architectural drawings will be held, and to which reception and exhibit all visitors are cordially invited. This exhibition is intended to be the largest and best of its kind ever held in this country. Responses have been received from all the best offices in the country, and it will without doubt be an occasion of the greatest professional interest and will be worthy of an especial visit.

The exhibit being conducted by the Cincinnati Architectural Club, drawings should be sent directly to them.

Railroads included in the territory of the Central Traffic Association and the Trunk Line Association, except the State of Michigan, will carry passengers coming to the convention at usual full rates, but will return all such at one-third full rate. This does not apply from New York City, either the New York Central & Hudson River or Pennsylvania railroads.

The territory within which the return fare will be granted includes the States of New York, Pennsylvania, New Jersey, Delaware, Maryland, Ohio, Indiana and Illinois, except the portion northwest of a line from Chicago to Quincy.

Those living in New England should purchase tickets to Albany or New York, and at one of these points buy through to Cincinnati, taking a certificate of the ticket agent, at Albany or New York.

Those coming from the Northwest should buy tickets to Chicago, Quincy or St. Louis, or some other point within the territory of the Central Traffic Association, at which points they can secure certificates entitling them to the reduction in return rate.

Purchase your tickets at least thirty minutes before leaving time.

In order to secure a reduction of rates it will be necessary to follow strictly the following instructions:

*First.* Each person must purchase (not more than three days prior to the date of the meeting nor later than three days after the commencement of the meeting) a first-class ticket (either unlimited or limited) to the place of meeting, for which he will pay the regular tariff fare, and upon request the ticket agent will issue to him a certificate of such purchase, properly filled up and signed by such ticket agent.

*Second.* If through tickets cannot be procured at the starting point, the person will purchase to the nearest point where such through tickets can be obtained, and there repurchase through to

place of meeting, requesting a certificate properly filled out by the agent at the point where repurchase is made.

*Third.* Tickets for the return journey will be sold by the ticket agents at the place of meeting at one-third the highest limited fare only to those holding certificates, signed by the ticket agent at point where through ticket to the place of meeting was purchased, and countersigned by the secretary or clerk of the convention, certifying that the holder has been in attendance upon the convention. All certificates must be signed by Normand S. Patton, secretary Western Association of Architects.

*Fourth.* It is absolutely necessary that a certificate be procured, as it indicates that full fare has been paid for the going journey, and that the person is therefore entitled to the excursion fare returning. It will also determine the route via which the ticket for return journey should be sold, and *without it no reduction will be made*, as the rule of the association is that "No refund of fare can be expected because of failure of the parties to obtain certificates."

*Fifth.* Tickets for return journey will be furnished only on certificates procured not more than *three days* before the meeting assemblies, nor later than *three days* after the commencement of the meeting, and will be available for continuous passage only; no stop-over privileges being allowed on tickets sold at less than full fares. Certificates will not be honored unless presented within *three days* after the date of the adjournment of the convention.

A. J. BLOOR, secretary A. I. A.  
N. S. PATTON, secretary W. A. A. } *Committee of*  
E. H. KENDALL, } *Arrangements.*  
CHARLES CRAPSEY.

November 20, 1889.

### SPECIAL TRAIN FROM CHICAGO TO CINCINNATI.

At the request of several members arrangements have been made to have a special car from Chicago to Cincinnati for those attending the convention. The "Monon" route has been chosen on the recommendation of the local Committee of Arrangements. There are two trains that will accommodate delegates. A day train, "THE VELVET," consisting of chair and elegant dining cars, leaving Chicago Tuesday morning, November 19, at 9:55, and reaching Cincinnati at 7:20 P.M., in time for the evening reception. The night train leaves Chicago at 9:30 P.M., Tuesday, and arrives at Cincinnati at 7:30 A.M. Both of these are vestibule trains. If a sufficient number can be guaranteed, there will be a special car reserved for our delegates on both of the above trains. Please write to the secretary as soon as possible whether you will attend the convention, and which of the trains you propose to take, in order that space may be reserved for you. If you will go by the day train, state whether you prefer the chair car at \$1 extra. The train will leave from Dearborn Station, Chicago. The fare for the round trip from Chicago will be \$10.70, on the certificate plan. Tickets may be purchased at the City Ticket Office, No. 73 South Clark Street, or at the Dearborn Station.

NORMAND S. PATTON,  
Secretary W. A. A.,  
44 Montauk Block, Chicago.

November 6, 1889.

### SPECIAL RATES FROM THE SOUTH.

I have just secured reduced rates from the Southern Passenger Association on the same terms that have been granted by the other associations, as explained in the enclosed circular of instruction. This reduction applies to all the territory south of the Ohio river and east of the Mississippi.

NORMAND S. PATTON,  
Chicago, Ill., November 8, 1889. } *Secretary W. A. A.*

## Association Notes.

### ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

The sixth annual meeting of the Illinois State Association of Architects was held October 14, at Chicago.

The meeting which followed the usual lunch was called to order by President W. W. Clay, who stated that as the minutes of the last meeting were published in full in THE INLAND ARCHITECT, if there was no objection, they would stand approved. Mr. Clay on behalf of the Executive Committee said the matter of permanent quarters had been considered, but nothing definite had been done. In regard to a protective league the committee had decided that in view of the approaching consolidation of the two national bodies, both of which had considered the matter of a protective league, it was thought best to do nothing further at present. It was thought that the consolidation would also determine the matter of permanent quarters.

The treasurer made no definite report but showed a good balance in the treasury after paying the expenses of the year. The report was postponed till the next meeting.

On motion of Mr. Adler, in view of the fact of consolidation, the election of officers was postponed for two months, the present officers to retain their places during that time.

There were present at the meeting: D. Adler, W. W. Clay, C. M. Palmer, N. S. Patton, Frederick Baumann, S. M. Randolph, O. J. Pierce, George Beaumont, J. L. Silsbee, L. D. Cleveland, Clinton J. Warren and Clarence L. Stiles.

### CHICAGO ARCHITECTURAL SKETCH CLUB.

The regular annual meeting of the club was held Monday evening, November 4, President W. G. Williamson in the chair. Secretary C. A. Kessell read the report of the Adjudicating Committee of the Clark Medal Competition, which is published elsewhere.

The annual business of the club being announced, the roll was called and showed a membership, in good standing, of fifty.

The report of Treasurer E. J. Wagner showed the amount of dues assessed and the balance in the treasury to be \$983.11. The expendi-



tures of the year amounted to \$844.13; the balance, \$138.98, added to the amount realized through renting the club rooms to other associations, \$371, leaves in the treasury \$509.98, a small amount of which in dues being still uncollected.

There was considerable applause on the reception of the treasurer's report, and the president thanked Mr. Wagner for the club for his energetic work in collecting money due the club and renting the club rooms advantageously.

On motion of Mr. Beaumont this was made the sense of the meeting, and a vote of thanks was tendered Mr. Wagner.

The chair appointed as auditing committee Messrs. Troast and Wood.

The chair announced the election of officers as being in order, and, on motion, a committee of four, consisting of C. W. Trowbridge, Oscar Enders, T. O. Fraenkel and J. Beckman, as committee on nominations.

The result of the balloting was as follows:

President, William Bryce Mundie; first vice-president, Charles A. Kessell; second vice-president, O. C. Christian; secretary, William R. Gibb; treasurer, E. J. Wagner; executive committee, the officers and F. L. Linden and T. O. Fraenkel.

In the balloting for president the first ballot was almost unanimous for the reelection of W. G. Williamson, but circumstances would not allow him to take the office for another year.

### Our Illustrations.

Monadnock Office Building, Chicago; Burnham & Root, architects.

Design of residence for Mr. Henry Shenk, Erie, Pennsylvania; D. K. Dean & Son, architects.

Residence of Mr. J. P. Smith, Fifty-third street and Lexington avenue, Chicago; M. E. Bell, architect.

House at West Toronto Junction for Mr. Theodore Heintzman; Knox, Elliott & Jarvis, architects, Toronto.

"The Birches," Cushing's Island, Maine, for Mr. John Kelley Robinson of Chicago; Fassett & Thompson, architects, Portland, Maine.

Hermitage Building, for W. W. Carlin, Court and Franklin streets, Buffalo, N. Y.; W. W. Carlin, architect. Dark colored, hard burned pressed brick, red Medina sandstone piers, jambs, sills, lintels, and arches; roof, red Akron tile; plate glass windows first and second floor. Office entrance Court street; first floor, stores and doctor's office, with fireproof vaults, high, airy basements; basement, under rear end, heating apparatus for whole building; office, fronting Court street, second floor, north light, managing clerk and stenographer next private office, phonograph arranged to work from both sides of the partition; library used as study and private consulting office, private drafting room, telephone box arranged to work from both sides, lavatory, separate lockers for draftsmen, private passage to dining room of residence. Residence entrance on Franklin street, occupies second, third and fourth floors; hollow wall divides it from office; janitor's quarters and extra offices, fourth floor, Court street front. Finish, first and second floors, native hardwoods, third and fourth floors, white and Georgia pine; cost \$32,500, to be completed and occupied May 1, 1890.

Mosby Street School, Memphis, Tenn.; Minard L. Beers, architect, Chicago. It is one of four now under process of construction, will cost about \$18,000, including furnaces and dry closets, the four being built under two contracts; pressed brick front, slate roof, galvanized iron cornice. The round bay shown is to be covered with slate. Owing to the warm climate there are porches over the entrance as a protection against heat. The building is planned for six rooms, three on each floor, and the halls are so arranged that there will be two flights of stairs from entrances to first story, and one flight from first to second story. Over the entrance on the right hand side is the teacher's room, and over the entrance on the left, the library. Over the library in the second story is the principal's office. The two rear rooms in the second story are connected by means of one large sliding door that occupies the entire space between the two rooms. On this door the blackboards are placed, thereby wasting no wall space. The large door is operated by means of a windlass, is evenly balanced, and arranged so it can be lowered between the two lower rooms. This building will be supplied with all modern conveniences. It will be finished in clear pine, with floors of hardwood. It will be heated with furnaces, and will contain a dry-closet system.

### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence for Miss J. F. Doty, Cleveland, Ohio; C. O. Arey, architect.

General view of Paris Exposition grounds, taken from the Trocadéro.

Residence of Albert G. Clark, Glendale, Ohio; Charles Crapsey, architect, Cincinnati.

Business block for Hon. H. B. Payne, Cleveland, Ohio; Cudell & Richardson, architects.

General view of Paris Exposition grounds, taken from the fourth landing of the Eiffel Tower.

Bronze Statuary Groups for the Cleveland Soldiers' Monument; Levi T. Scofield, architect. The third and fourth groups of statuary representing the cavalry and naval service, are published with this issue. We have previously published the infantry and artillery groups. The former has been cast in bronze in the foundry of Bureau Bros., Philadelphia, and the latter at the bronze foundry of the Ames Manufacturing Co., Chicopee, Massachusetts. The cavalry

group is completed in plaster, and the bronze founders of the country are now preparing their bids for the work. The navy group is nearly finished. The pedestals on which these realistic scenes of the war, in bronze, are to be placed, are each 10 feet high, and 7 by 19 feet. The figures are from 7 feet 6 inches to 8 feet in height. Mr. Scofield is now engaged in modeling a statue of liberty that will surmount the column, which in itself is 14 feet in height, and will be placed 125 feet above the ground. The cavalry group represents a conflict between an advance guard of federal cavalry that have encountered the head of the confederate column, and are making a desperate attempt to hold the line until the arrival of the main column, which is being hastened to the front by the bugle call. The guidon-bearer's horse has been shot and is struggling to regain his feet. The rider is not wholly dismounted, and is defending his flag from the venturesome "Reb." who has taken advantage of the "Yank's" predicament to make a capture. The confederate officer has seized the flag that has been shot from the grasp of his wounded color-bearer, and holding it up is calling to his men to follow in the assault. The navy group represents a scene on one of the bombarding flotillas on the western rivers.

CORRECTION.—The title of plate in last number, "Case School Gymnasium," should read, "Adelbert College Gymnasium."

### Personal.

ARCHITECT SAMUEL A. TREAT, treasurer of the Western Association of Architects, has returned from a European trip. Mr. Treat will not write a paper on the subject, nor give a detailed account of what he saw for publication, but by the youthful bloom that pervades his cheeks and the disappearance of the crow's feet that, through the onerous duties of his office were beginning to disturb the harmonious blending of form and color on an otherwise handsome countenance, it is supposed that his trip was all that a good digestion and fine weather could make it. Mr. Treat will not particularly enjoy this paragraph, but will forgive it if turned to advertising account by suggesting that all dues from members should be in his hands long enough before the convention to enable him to perfect his annual report.

### Correspondence.

#### THE PRICE PRIZES FOR DECORATIVE DESIGN.

Mr. J. A. Price, of Scranton, Pennsylvania, whose offer of prizes for the best adaptation of maize in the industrial and decorative arts was published and commented upon in our October issue, has written regarding his purpose in offering the prizes, and as this can be best told in his own words, we give the letter in full:

Editors Inland Architect:

SCRANTON, Pa., October 26, 1889.

DEAR SIR,—Not being a subscriber, and someone having kindly mailed me a copy of your journal of October date, in which I find a reference to myself, page 34, will you permit me a mere comment as to your understanding of my intention, namely: It is not to secure the adoption of a national flower, plant or emblem, but to impress upon the American mind a motive for art and architecture that shall be characteristically individual or expressive of American individuality. To my mind there is nothing that gives greater promise than maize, as its possibilities and suggestions in form and color are practically infinite. Indeed, there is no plant that it does not excel when held to a close analysis. Historically there is a remarkable consistency, and we should be proud, when we canvass the old Aztec and Inca civilizations, to find its early recognition, as well as its origin, within the Americas; and still further, as it is the greatest cereal (2,000,000,000 bushels in a single year), so we, as in all likelihood the greatest nations, might well adopt it.

Its features are admirably adapted to architecture, and I should delight to dwell upon it as such in the line of your work of advocacy and record, but I believe I have said sufficient to disabuse you of the direction of your impression in regard to my intention in offering the prizes.

I have to thank you for your evident good will to such an effort as I am undertaking.

With earnest good wishes I am very truly yours,

J. A. PRICE.

### Synopsis of Building News.

**Alpena, Mich.**—Architect E. J. Harding has prepared plans for a two-story residence for W. E. Rodgers; frame, shingle roof, inside blinds, hardwood finish, gas fixtures, bathroom, kitchen and laundry outfits.

**Chicago, Ill.**—Architect Wm. Bagenbush: For August St. Germain, a two-story flat building, at 3219 Archer avenue; cost \$8,000.

Architect M. E. Bell: For Mrs. Hallem, a two-story residence, 27 by 74 feet; stone front, pressed brick sides, furnace, mantels; stained, plate and beveled glass, tiled vestibules; cost \$15,000; making plans.

Architects Burnham & Root have just finished plans for a handsome eight-story hotel, to cost \$700,000, to be erected at Indianapolis, Indiana. Pressed brick and stone front, steam heat, elevators, electric light, marble work, and all the latest improvements in hotel fixtures will be required.

Architects Charnley & Evans: For Water Cure Establishment, Kenosha, Wisconsin, a three-story and basement hotel, etc.; frame and brick, steam heat, elevators; Turkish, Russian and different kinds of baths; cost \$60,000. For Parmelee Brothers, a three-story manufacturing building, 45 by 73 feet; St. Louis pressed brick and Bedford stone, steam heat, elevator; cost \$15,000.

Architects Cole & Dahlgren: For W. L. Prettyman, six two-story dwellings, cut stone fronts, mantels, bathrooms, furnaces; cost \$30,000.

Architect W. H. Drake: For H. F. Waite, a four-story warehouse, 20 by 75 feet; cost \$12,000.

Architects Edbrooke & Burnham: For Libby, McNeill & Libby, at Stock Yards, a four-story canning and cold storage building, 170 by 170 feet; cost \$75,000.

Architects Fromman & Jebson: For Valentine Jobst, a three-story store and office building, 48 by 150 feet; cost \$22,000; location, Peoria, Illinois. For Cragin Hominy & Milling Co., a three-story mill and elevator, at Cragin, Illinois; cost \$20,000.

Architect L. G. Hallberg: For Mrs. Francis Lumley, a two-story factory, 70 by 115 feet; cost \$12,000. For A. M. Lynch, three three-story residences; Bayfield brownstone fronts, wood mantels, furnaces; cost \$24,000; Grand boulevard, near Forty-third street. For George R. Grant, a one-story factory, 60 by 80 feet. The walls will be made strong enough to carry a five-story building. For the Kretzer Manufacturing Company, a two-story factory, 40 by 60 feet; taking bids. For himself, a three-story store and flat building, 100 by 60 feet; cost \$25,000; taking figures.

Architect Theodor Karls: For J. Becker, a two-story residence, 22 by 64 feet, St. Louis pressed brick, terra-cotta and brownstone, steam heat, stained glass, marble mantels; cost \$6,000.

Architect Louis Martens: For Jacob Gross, a four-story lively stable, 60 by 110 feet, steam heat, elevators, stalls for eighty horses; cost \$15,000. For P. A. George, a two-story apartment house, 50 by 60 feet, St. Louis pressed brick and



blue Bedford stone, terra-cotta, copper cornice, two furnaces. For A. J. Tooler, two dwellings, blue Bedford stone, furnaces, stained glass; cost \$12,000; making plans. For S. H. McCrea, two-story store and flat, 25 by 100 feet, remodeling of same into apartment building, bathrooms, closets, stained glass, furnaces. For Thomas J. Leonard, a three-story apartment house, 53 by 65 feet, St. Louis pressed brick and Bedford stone, steam heat, bathrooms, closets; cost \$15,000.

Architect W. T. Leshner: For G. Wagner, a four-story store and flat building, 25 by 88 feet, Collinsville pressed brick and Michigan green buff stone, cost \$14,000. For Bridget Austin, a three-story store and flat building, 25 by 52 feet, Collinsville pressed brick and Ashland brownstone.

Architects Lamson & Newman: For L. W. Conkling, a two-story dwelling, St. Louis pressed brick and stone, two furnaces, mantels, stained glass; cost \$5,000. A four-story flat building, St. Louis pressed brick and stone; cost \$15,000. A four-story store and flat building, 65 by 150 feet, St. Louis pressed brick and stone; cost \$75,000; preparing plans. A four-story store and flat building, 100 by 117 feet, St. Louis pressed brick and Bedford stone; cost \$80,000; now working on plans.

Architect O. W. Marble: For William Clancy, a two-story flat building, stone front, two furnaces; cost \$10,000.

Architect J. L. Merriam: For J. N. Cuning, two two-story dwellings, pressed brick and stone; furnaces, etc.; cost \$8,000. For Andrew Pearson, a five-story warehouse, at 177 West Adams street; cost \$15,000.

Architect C. C. Miller: For Presbyterian congregation, at Helena, Montana, a church and parsonage; stained glass, pews, steam heat; cost \$40,000; preparing plans.

Architect J. A. Miller: For Thomas O'Connor, a three-story store and flat building; bathrooms, stained glass, Indiana pressed brick and Bedford stone; cost \$10,000.

Architect C. H. McAfee: For George P. Upp, four two-story dwellings, stone fronts, bathrooms, wood mantels, stained glass, furnaces; cost \$18,000; Forty-ninth and St. Lawrence avenue; making plans. For Harry Gehegan, a two-story flat building; Michigan green buff sandstone front, stained glass, bathroom; making plans. For J. F. Schneider, a two-story store and flat building, 50 by 52 feet; pressed brick and stone; cost \$8,000; preparing plans.

Architect C. W. Nothnagel, 3141 Cottage Grove avenue: For A. McIntosh, two three-story dwellings; mantels, bathrooms, etc.; cost \$30,000.

Architects Ostling Bros.: For Mr. Kohane, a four-story flat building, 25 by 76 feet; Anderson pressed brick and Bedford stone; cost \$15,000.

Architect John Otter: For Richard Ziesler, a dance hall, brick, iron and glass roof; making plans.

Architects Patton & Fisher: For New West Education Company, Chicago, a two-story academy, to be erected at Albuquerque, New Mexico; pressed brick and stone; three furnaces, etc.; cost \$18,000; making plans.

Architect Fred W. Perkins: For B. Philpot & Co., a two-story residence, 25 by 52 feet, Anderson pressed brick and stone front, furnace, mantels, stained glass; making plans. For F. H. Noble, a two-story factory, 40 by 100 feet, Anderson pressed brick front; cost \$10,000. For C. E. Scribner, a two-story residence, 35 by 45 feet, frame, stone foundation, furnace, stained glass; cost \$6,500. For B. H. Conkling, a two-story frame residence, stone basement, stained glass, furnace; cost \$6,000.

Architect A. L. Schellenger: For Eugene Brown, Fifty-sixth and Sangamon streets, three dwellings, furnaces, mantels, bathrooms; cost \$13,000.

Architect H. H. Sprague, Hyde Park: For J. L. Cochran, three two-story dwellings, frame, stone basements, furnaces, mantels, bathrooms; cost \$13,000; to be erected at Edgewater.

Architect William Strippleman: For John W. Hedenberg, a seven-story and basement factory, 100 by 100, pressed and common brick with buff Bedford stone, elevator, steam heat; cost \$75,000; this is part of a building which will ultimately have a frontage of 275 feet on Harrison street west of Desplaines. For Joseph Klicka, a six-story warehouse, 40 by 80 feet; cost \$18,000; Anderson pressed brick and Bedford stone, steam heat, elevator.

Architect F. L. Sutherland: For John F. Lyon, a six-story factory, at 69 to 81 Van Buren street.

Architect J. C. Swalm: For N. L. Hansen, a two-story residence, 25 by 66 feet, Michigan green buff sandstone front, furnace, etc.; cost \$16,000.

Architect H. B. Wheelock: For Comstock & Wing, a five-story and basement factory, 50 by 100 feet, elevator, steam heat; cost \$12,000; making plans.

Architects Sehaub & Berlin: For W. Walk, four-story and basement store and flat building, 100 by 85 feet; blue Bedford stone; cost \$45,000.

Architect L. Mantine: For T. J. Leonard, five three-story flat buildings, 100 by 63 feet; pressed brick and stone; cost \$30,000.

Architect F. La Pointe: Three-story and basement store building, 120 by 125 feet; blue Bedford and Bayfield stone front; cost \$28,000. Store and flat building, 74 by 60 feet, on South Halsted street; pressed brick and stone; cost \$10,000.

Architect J. S. Villere: For Geo. Harding, ten one-story stores; brick and iron fronts; cost \$10,000.

Architect C. Vigeant: For W. E. Clow, two-story and basement building and barn; cost \$15,000.

Architects Pond & Pond: For I. A. Springer, six houses on Prairie avenue, near thirty-ninth, each 20 by 90, three stories and basement; stone, brick, green slate, furnace heat, hardwood trimmings; cost \$21,000.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall.

The two important subjects at present agitating the architectural world are the joint convention of architects and the national exhibition of drawings, to be held in Cincinnati in November.

The Cincinnati Architectural Club is doing well and the outlook for a fine and large exhibition is most encouraging. It is a genuine pleasure to see how even the older architects are coming forward with contributions. This is an exhibition that no one in the architectural profession can afford to miss, for are we ever too old or young to learn? In the name of our citizens I cordially invite you all to come and enjoy the good things with us.

In a business way, matters are quiet, and as a consequence reports are meager.

Thornton Fitzhugh, architect, has, among other plans, the following: Stables for J. W. and W. W. Crothers, to be built of frame and shingles, with shingle roof, cement floors, hardwood stalls, yellow pine flooring, stable fittings, etc. For Col. D. W. McCleurg, custom house, city, addition to his residence; to have slate roof, wood mantels, pine finish, plumbing, etc. For Mr. A. G. Palmer, Eastern avenue, city, a two and a half-story frame house of eight rooms, slate roof, pine finish, wood mantels, plumbing, gas, etc.; cost \$3,000.

Architect S. E. Des Jardins reports the following: For John W. Siebern, city, a frame residence of eight rooms, stained glass, pine finish, plumbing, wood mantels, gas, slate roof, etc.; cost \$4,500. For Robt. Owens, Walnut Hills, city, a residence; same as above as regards materials; cost \$3,600. For R. P. Jacobs, Dayville, Ky., a brick residence, two and a half stories, ten rooms, shingle roof, stained glass, gas, plumbing, wood mantels, etc.; cost \$10,000. For J. Marks, Memphis, Tenn., a residence of pressed brick and tile, stained glass, inside blinds, hardwood finish and floors, marble tiling, wood mantels etc.; cost \$12,000.

Architect W. W. Franklin has drawn plans for a residence for Geo. Gerke, Esq. It is to be pressed brick, with stone trimmings, hardwood finish, wood mantels, plumbing, slate roof, etc.; cost \$7,000.

Architect H. E. Siter has drawn the plans for store and flat building for Thomas Hanna, of this city, to be of pressed and common brick with stone trimmings, and have plumbing, dumb waiters, pine finish, tin roof, etc.; cost about \$12,000.

Architect John H. Boll has drawn plans for Mr. Joseph Oker for a cooper shop of brick, with tin roof; cost \$10,500.

Architect Edwin Anderson has drawn the plans for the new factory for the Emerson & Fisher Carriage Co., to be of brick, with tin roof, steam elevators, electric bells, plumbing, etc.; cost \$15,000.

Architects Crapsey & Brown report a dormitory building for the Ohio Wesleyan University at Delaware, Ohio; the building is to be of brick and stone, four stories high, and have furnaces, stained glass, slate roof, hardwood finish, plumbing, etc.; cost \$15,000.

Architects G. & A. Brink have drawn plans for Meyer Rothschild for a store and flat building, four stories high, of brick, with steam heat, elevators, plate glass, tin roof, wood mantels, plumbing, etc.; cost \$10,000.

Architect Wm. Martin Aiken is busily engaged on the plans for the remodeling of a residence for Mr. F. Eckstein, president of the Eckstein White Lead Co.

The alterations will be quite extensive, and consist of a brick addition, with hard and soft wood finish, stained glass, hardwood finish and floors, furnaces, plumbing, etc.; cost \$15,000. He has also drawn plans for a stable in the rear of lot.

**Defiance, Ohio.**—Architect J. J. Hale has made plans for a factory building for P. Schlosser, to be two stories in height, 200 by 100 feet; brick, gravel roof, iron beams, steam heat, elevators, etc.; cost \$10,000.

**Helena, Ark.**—Architect C. L. Thompson, of Little Rock, has made for L. J. Wilkes plans for a two-story frame residence; cost \$3,800. Also for C. D. Owens, one-story brick residence; cost \$6,000.

**Jackson, Mich.**—Architects Thurtell, Fleming & Co. have made plans for a two-story residence for T. E. Barkworth; frame, shingle roof, inside blinds, dumb waiters; common, plate and stained glass; wood and slate mantels, paneling; bath, kitchen and laundry fixtures; gas fixtures, hot water heat, electric work, etc.; cost \$6,000.

**Kokomo, Ind.**—Architect J. F. Bruff has made the plans for a three-story business building, 46 by 100 feet, for C. A. Jay; pressed brick and stone, iron beams and columns, plate glass, fireproof vaults, etc.; cost \$14,000.

**Little Rock, Ark.**—Architect C. L. Thompson has made the following plans: For Mrs. T. E. Murrell, two-story dwelling, frame; cost \$3,000; also two cottages, cost \$1,800 each. For J. M. Dungan, one-story dwelling, frame; cost \$2,500. For Mrs. E. J. Kidder, two-story dwelling, frame; cost \$4,000.

**Minneapolis, Minn.**—The following permits were granted during the month of September: Mary H. Crocker, dwelling, \$3,000; Robert Hall, brick veneer dwelling, \$5,000; S. Berg, brick veneer dwelling, \$4,700; V. Campbell, Jr., brick store and tenements, \$14,500; John H. Elliot, dwelling, \$4,000; J. H. Seymour, brick store and dwelling, \$9,500; M. A. Jones, dwelling, \$3,500; P. M. Hanson, two-story tenement row and addition, \$10,000; F. E. Friel, two-story brick dwelling, \$7,000; J. A. Walters, three two-story frame dwellings, \$10,000; A. M. Sprague, two-story frame dwelling, \$3,000; J. J. Towers, two-story frame dwellings, \$3,000; E. Maudlin, two two-story frame dwellings, \$12,000; Dr. Geo. F. Roberts, two-story frame dwelling, \$12,000; John Hedlund, double-story cement veneer dwelling, \$4,500; E. J. Romo, one-story brick addition, \$7,000; W. B. Griswold, double three-story brick tenement row, \$12,000; Ingham Brothers, two-story frame dwelling, \$3,000; Joseph McDermott, alterations to dwelling, \$3,000; George McGregor, three two-story frame dwellings, \$12,000; August Gagnon, two-story brick veneer dwelling, \$4,000; R. Ertt, two-story frame dwelling, \$6,500; James Schackleton, two-story frame dwelling, \$3,000; R. W. Barber, two-story frame dwelling, \$3,800; Arthur Leck, three-story brick and stone flats, \$8,000.

**Newport, Ky.**—Architects Glick & Banderman report for H. Wadsworth & Co., watch case manufacturers, a factory 27 by 100 feet, two stories high, of brick, to be fitted with improved machinery; cost \$4,000. For Edward J. Thompson, a brick residence of twelve rooms, two stories high, with hardwood finish, plumbing, terra-cotta, tin roof, etc.; cost \$6,500. For Charles J. Fieger, a store building, to be of iron and pressed brick, two and one-half stories high, with hydraulic elevator, pine finish, etc.; cost \$4,000. For Thomas Bardsley, a flat building, of brick, three stories high, to have pine finish, terra-cotta, hot water heating, etc.; cost \$6,000. For Peter Boehmer, a store and flat building, to be built of brick, stone and iron, three stories high, electric bells, slate roof, plumbing, etc.; cost \$5,500.

**Pittsburgh, Pa.**—The year 1889 has been a very satisfactory one to the architects and builders of Pittsburgh, none of them complaining they have not had enough to do, and the outlook for 1890 is most flattering. The promise is that it will be an unusually active building year. For the past three weeks the number of permits taken amount to 176, at an aggregate estimated cost of \$419,405.

The following work among the architects is under way, or plans completed: Architect I. W. Burr: For J. Burford, brick residence.

Architect James T. Steen: For Mrs. M. F. Fanestock, two-story residence building, Queen Anne style.

Architect J. W. Offerman: For J. C. Schafer, an eight-room dwelling. Also plans for a two-story brick dwelling.

Architect F. F. Osterling: For George Wilson, three-story building, stone; cost \$9,000. For H. W. Wilkes, dwelling; cost \$4,000.

Architect James H. Giles: For Black & Baird, residence; stone construction throughout; cost \$16,000.

Architect F. C. Sauer: For Second Avenue Street Railway Company, power house; brick with stone trimmings. For J. N. Miller, dwelling; frame construction. For D. P. Black, fifteen-room residence; stone construction throughout; cost \$15,000. For Samuel Woods, house of similar character. Cleveland blue limestone will be used in these structures. For Baird & Black, twelve-room residence; Beaver county white sandstone throughout; cost \$13,000. For Peter Miller, two brick buildings with stone trimmings, and all latest improvements. For J. R. Mellon, two similar buildings. For G. D. Simen, improvements and additions to old Cochran homestead.

Architect T. D. Evans: Preparing plans for the rebuilding of St. John's Catholic Church, at Johnstown, Pennsylvania, together with a parochial school building; estimated cost \$90,000. Five-story bonded warehouse for Thompson distillery; cost \$12,000. For G. H. Bennett, addition to business block.

Architect J. P. Bailey: For Presbyterian Society of Beaver, Pa., church edifice, to cost \$30,000.

Architect Jos. Stillburg: For Aug. Stramel, Johnstown, Pa., two brick buildings, stores with apartments above. Completed plans for the Merchants Hotel, Johnstown, Pa., to be five stories with an area of 65 by 132 feet; cost \$50,000.

Architect T. C. McKee: For H. Negley, three-story business block, brick and stone construction. For J. C. Jamison, ten-room dwelling, frame construction. For Jas. Lyons, two-story and mansard residence, brick construction. For Mr. Kohl, addition of two stories to business building. For J. Gauster, eight-room dwelling, frame construction. For C. Reimer, eight-room dwelling, frame construction.

Architects Hodgdon & Thoms: For Dr. Easton, store building. For Federal Street & Pleasant Valley Railway, power house. For Mr. Eckert, brick residence; block of five four-story dwellings, 125 by 70 feet, first story stone, balance brick; block of five two-story and mansard dwellings, brick construction. For H. Hammer, residence, brick construction.

Architect W. H. Wahle: For P. Schwan, two-story dwelling, first story stone, upper story brick. For J. E. Borne, two-story frame dwelling. For H. Loxten, iron-clad planing mill.

**Quitman, Ga.**—Architect A. H. Johnson has made plans for ten dwellings for C. H. Thompson; brick construction; aggregate cost \$22,000. Also plans for residences for W. Harrell, J. R. Barnes and J. Harris. For a stock company, a three-story hotel building, 67 by 130 by 50 feet; common, pressed, ornamental and enameled brick, shingle roof, elevators, mantels and modern appliances and conveniences; cost \$15,000.

**Rock Island, Ill.**—Architect Schureman is making plans for a warehouse building for the Moline Wagon Company, 60 by 100 feet; cost \$15,000.

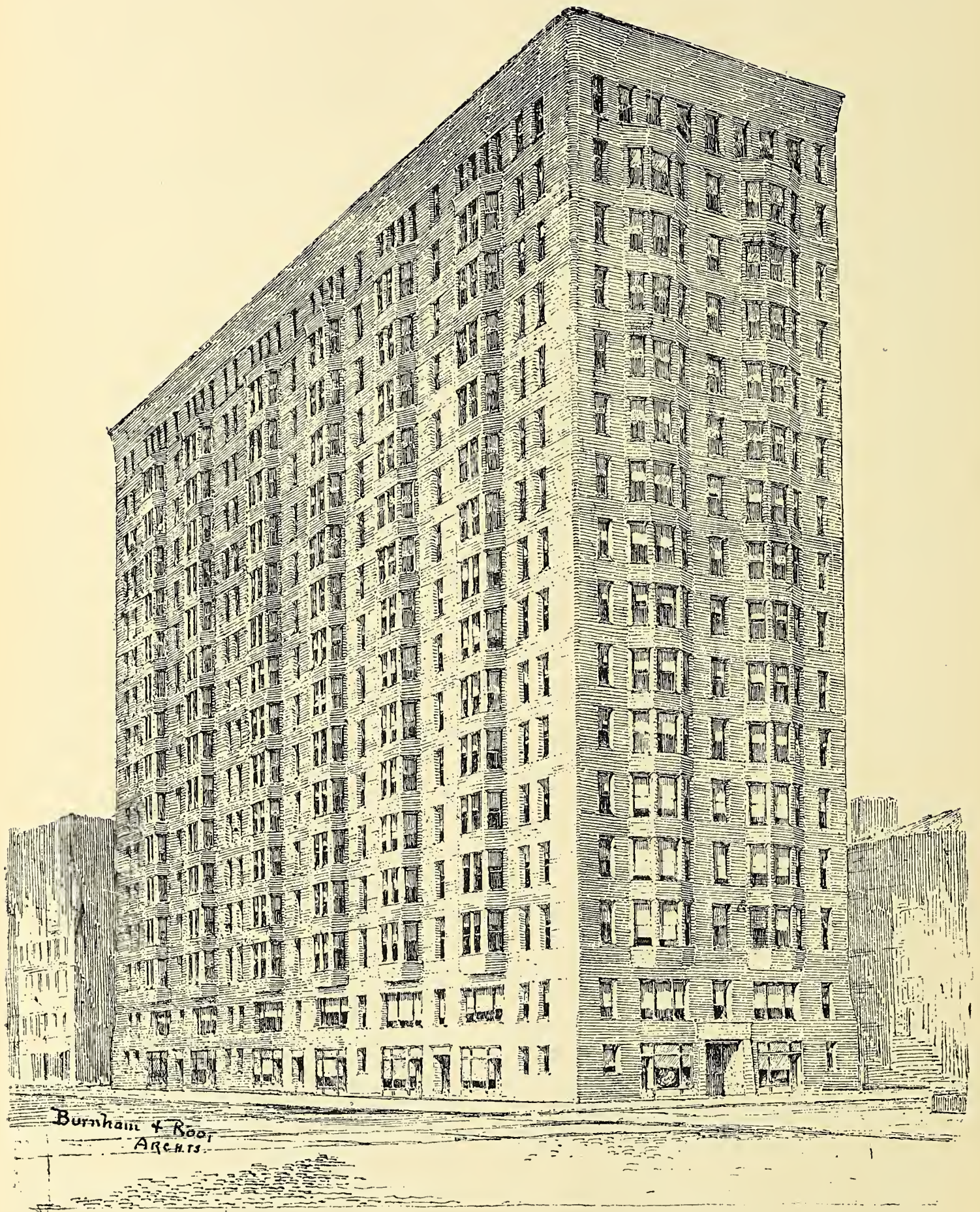
**St. Paul, Minn.**—The following permits were issued during the month of September: R. M. McLaren estate, brick store and dwelling, \$12,000; C. F. Meyer, brick store and dwelling, \$16,000; trustees Central Church, church, \$85,000; Marthine Christianson, dwelling, \$5,000; Peterson & Dahlby, brick veneer store and dwelling, \$10,000; F. S. Kirkpatrick, dwelling, \$5,000; A. E. Gustafson, brick dwelling, \$5,000; Ole Overson, dwelling, \$5,000; A. C. Anderson, dwelling, \$6,000; M. S. Gray, brick dwelling, \$6,000; John Sandberg, dwelling, \$5,000; Ferdinand Blase, dwelling, \$6,000; Gustave Patterson, dwelling, \$5,000; A. C. Dibble, dwelling, \$5,000; Minnesota Soap Co., factory, \$7,000; Martha Bass, brick dwelling, \$18,000; Church of St. Mark, frame church building, \$7,000; F. C. Barnard and J. J. Kenna, dwelling, \$5,000; John Peterson, dwelling, \$5,000; Dr. J. E. Schadle, dwelling, \$7,000; Wm. Pearson, brick dwelling, \$15,500; Nellie Kingsley, three dwellings, \$15,000; T. J. Witbeck, six dwellings, \$14,700.

**Toledo, Ohio.**—Architect A. Liebold: For B. Kruger, two-story dwelling, 32 by 62 feet; frame, shingle roof, plate glass, wood mantels, bath and laundry outfit, electric bells, outside window blinds, etc.; cost \$4,500. For T. D. Provost, two-story dwelling, 26 by 54 feet; frame, softwood finish, outside blinds, common and plate glass, wood mantels, plumbing; cost \$2,700. For J. Kurz, three-story store and apartment building, 26 by 60 feet; common brick, tin roof, elevators, steam heat, etc.; cost \$4,000.









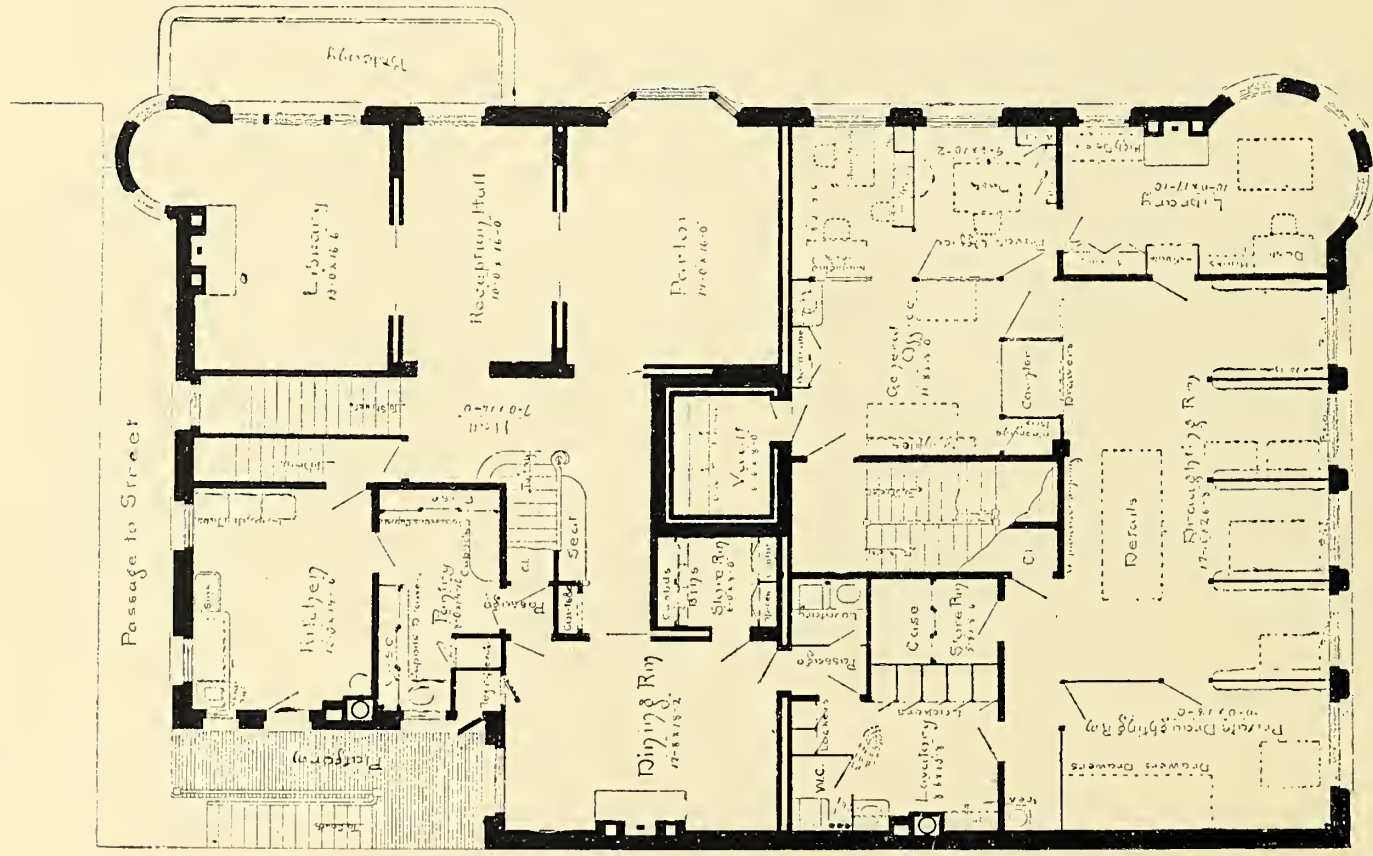
THE MONADNOCK OFFICE BUILDING, CHICAGO.

BURNHAM & ROOT, ARCHITECTS.

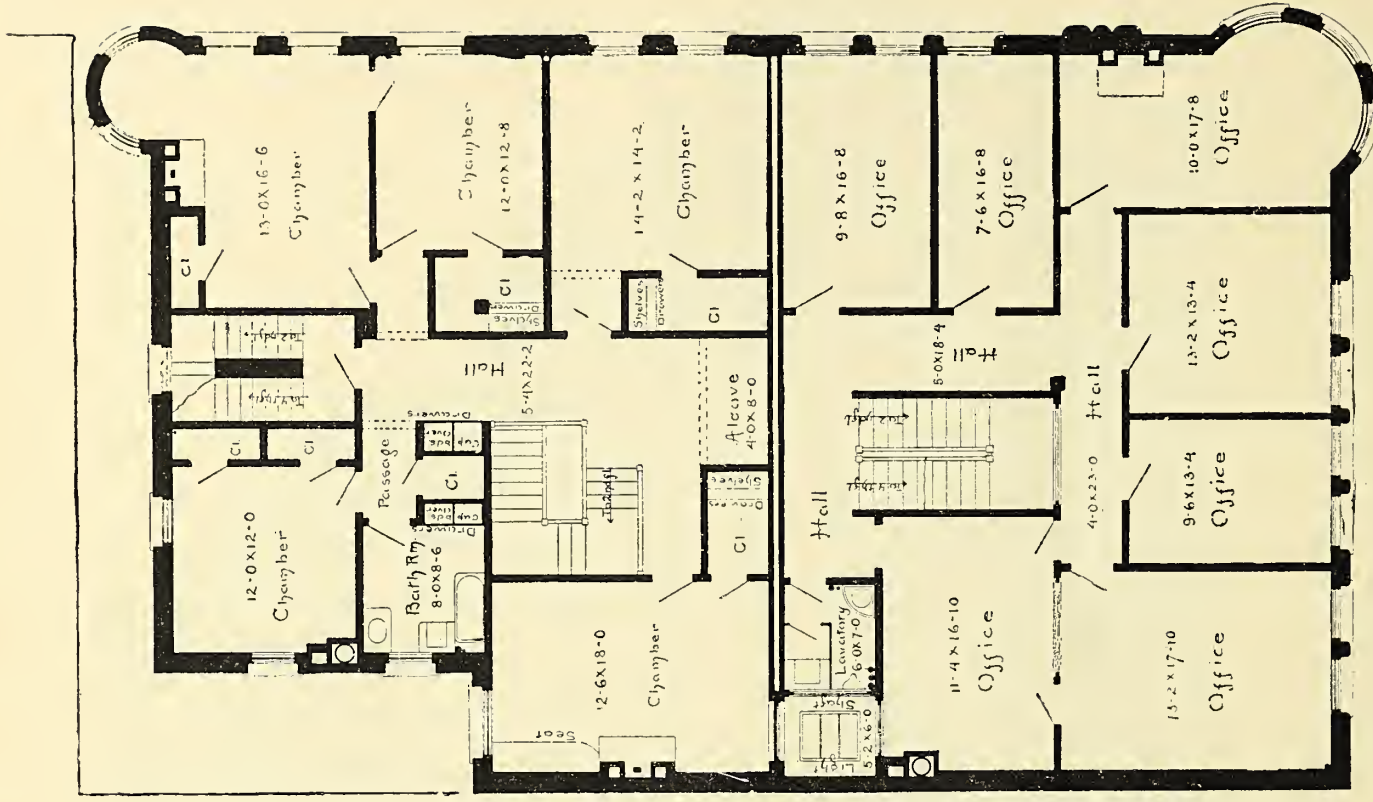




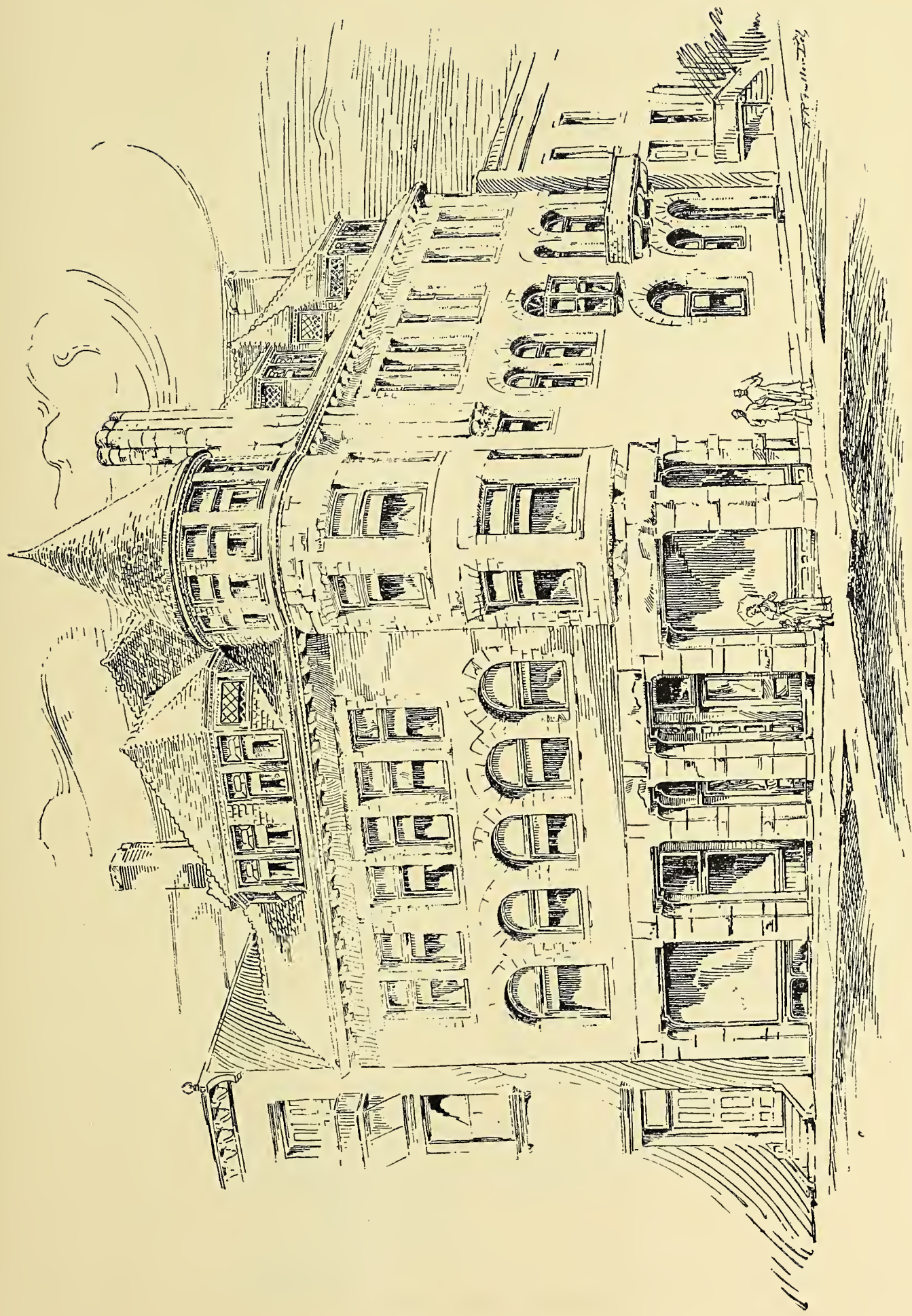




“THE HERMITAGE.”







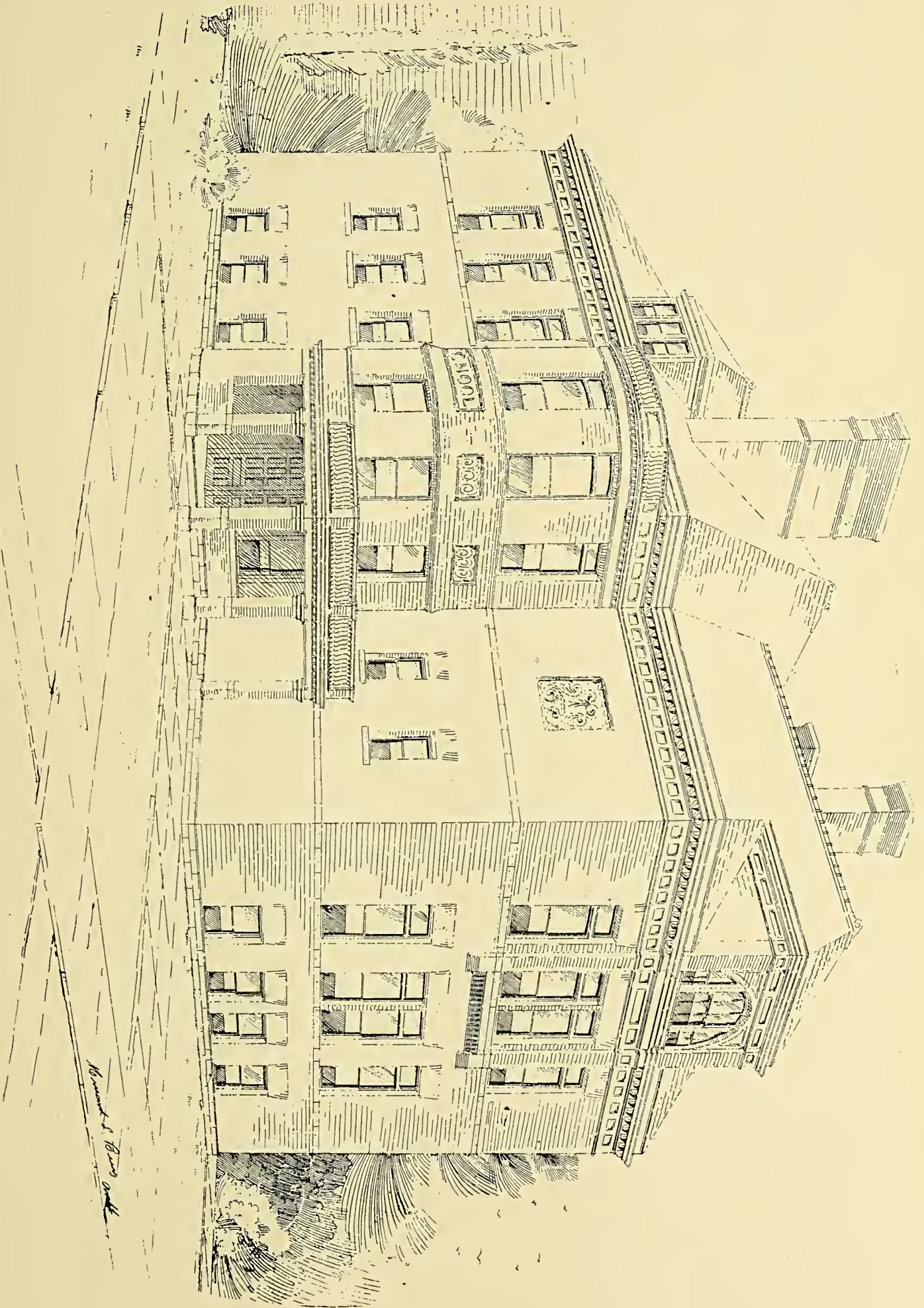
"THE HERMITAGE," BUFFALO, N. Y.  
W. W. CARLIN, ARCHITECT AND OWNER.







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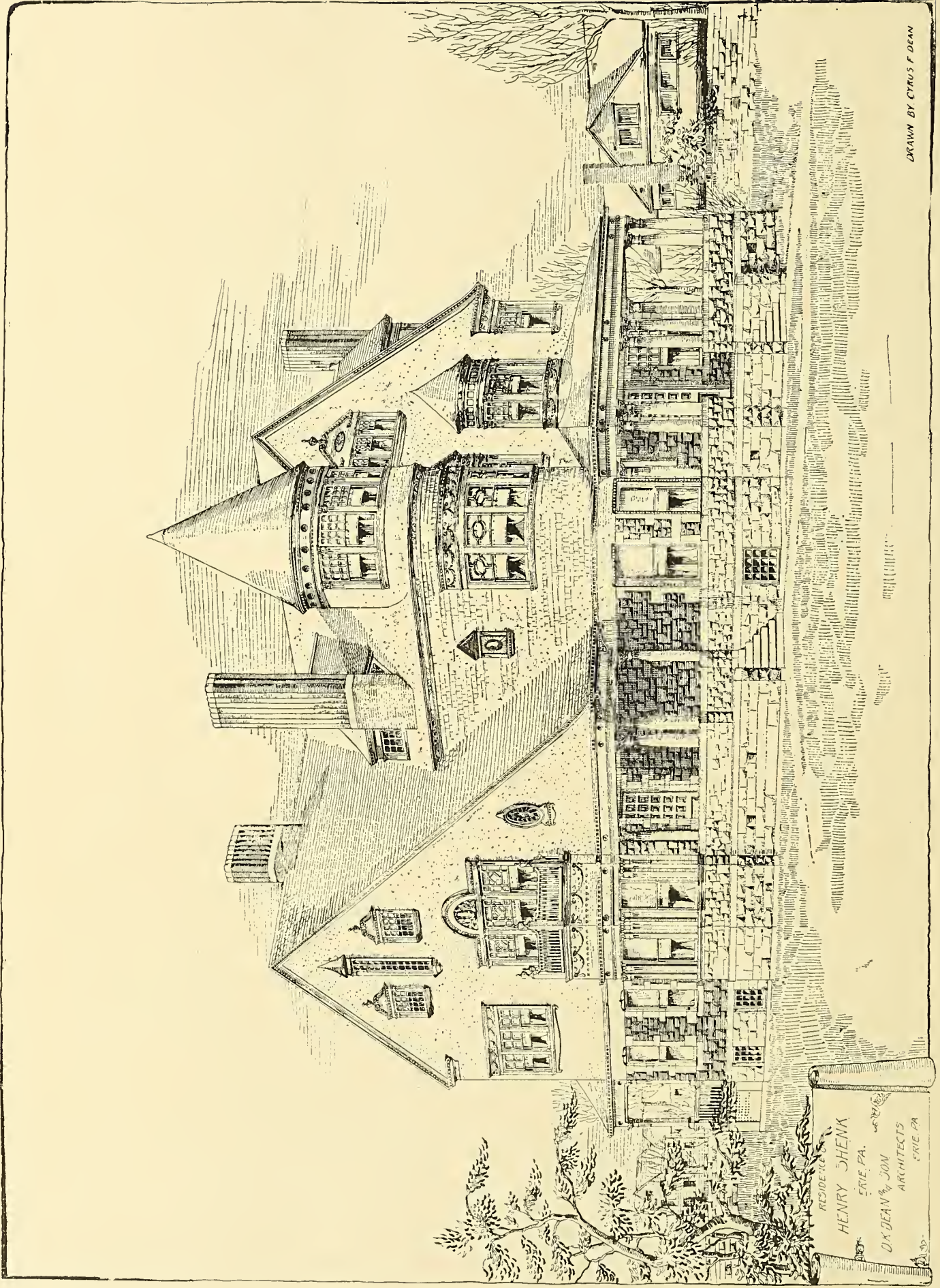








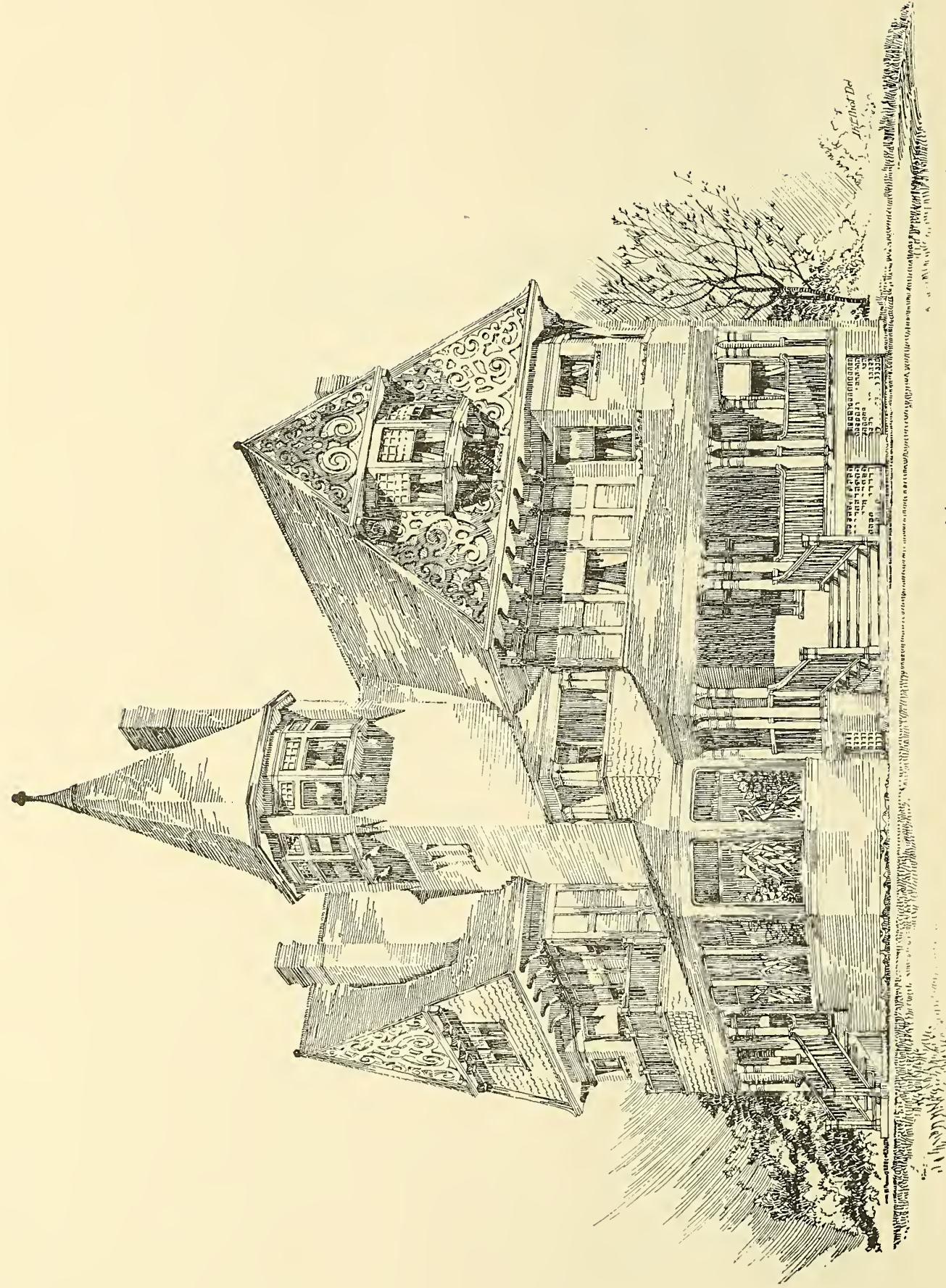




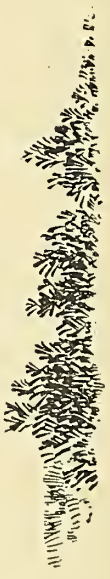




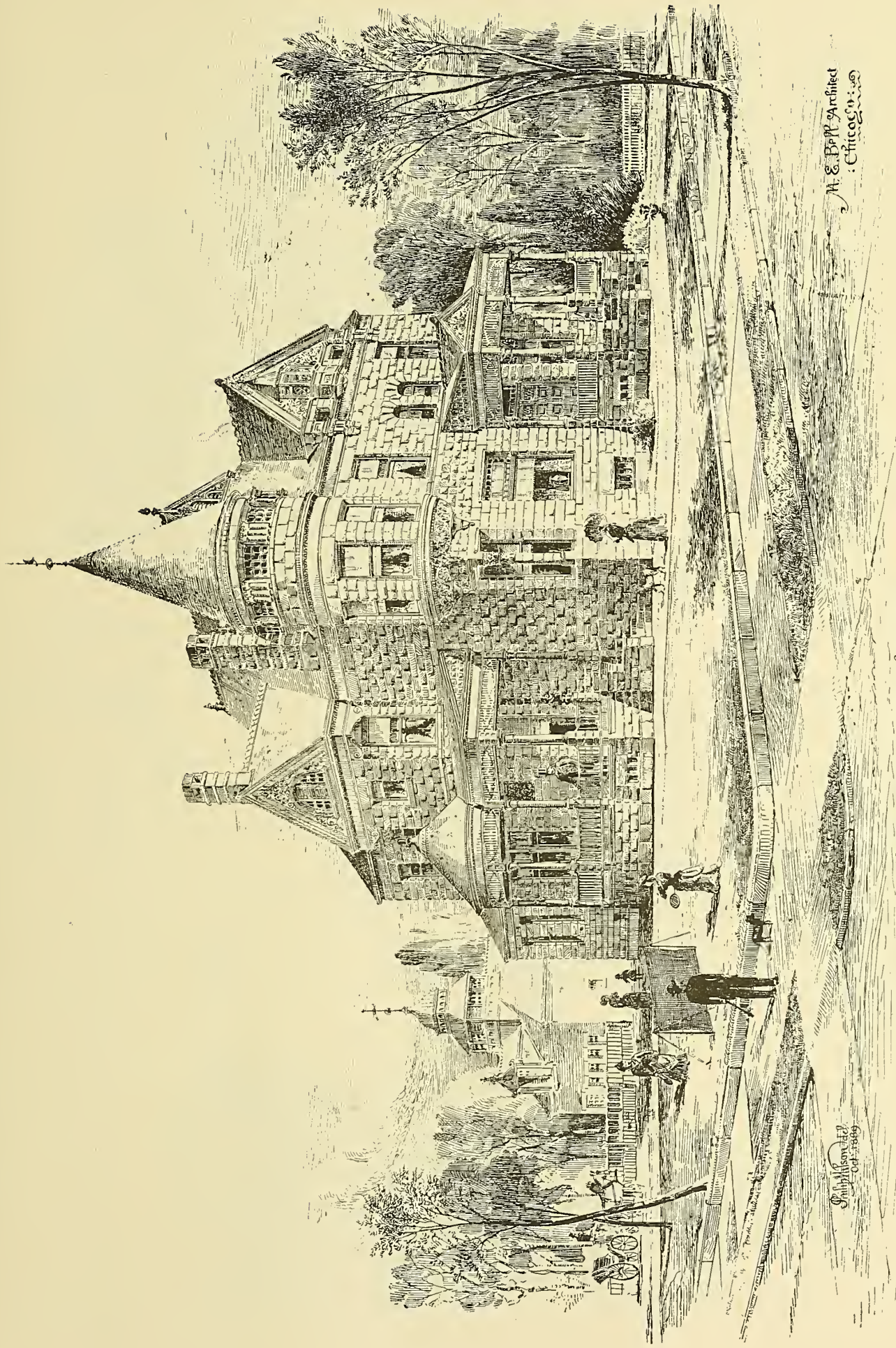




House at West Toronto Junction, for  
Theodore Heintzman Esq  
Knox, Elliot & Jarvis Architects, Toronto







: Residence of J. P. Smith, Esq. :  
53rd & Lexington Ave. Hyde Park, Chicago, Ill.

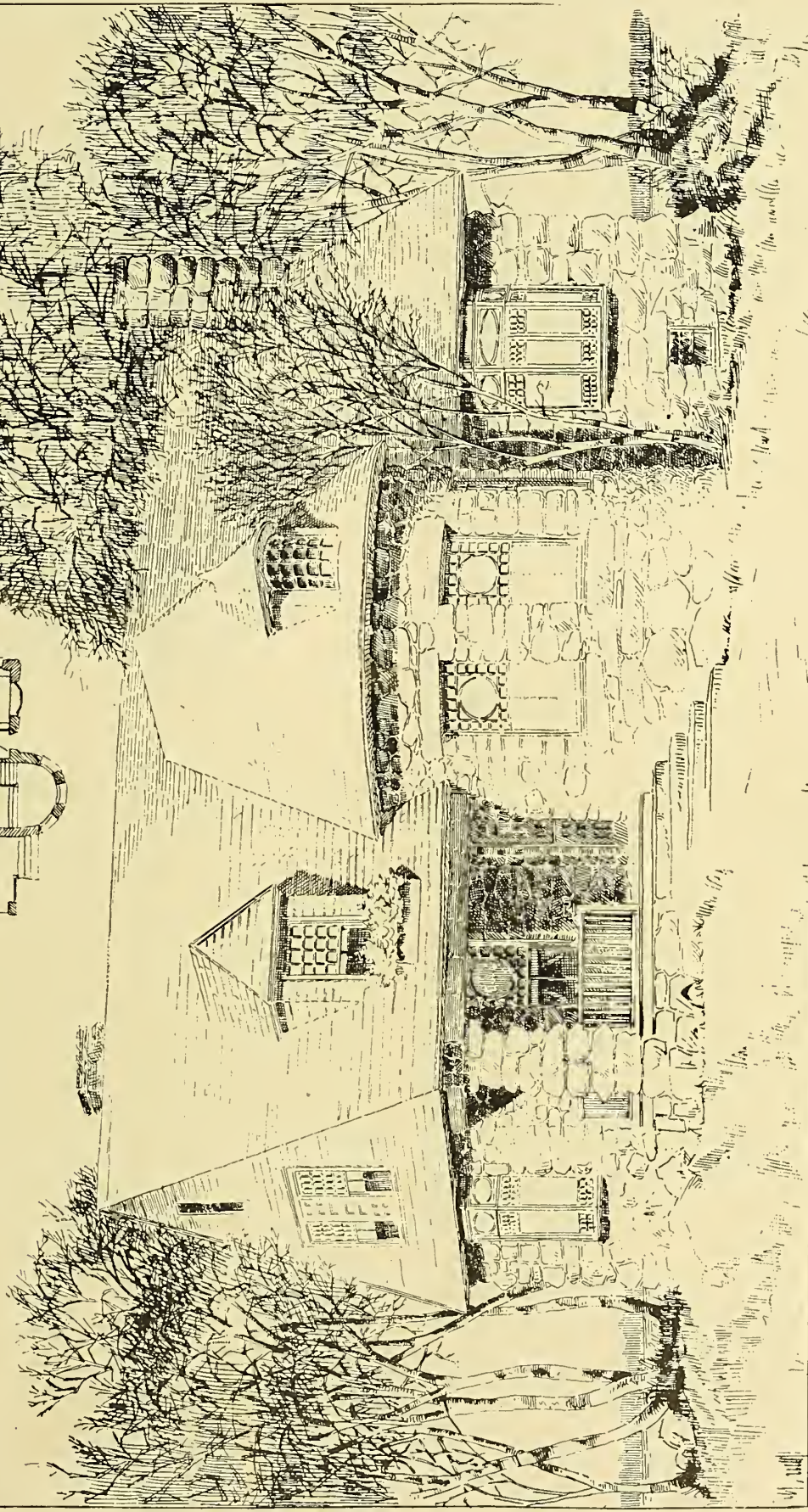
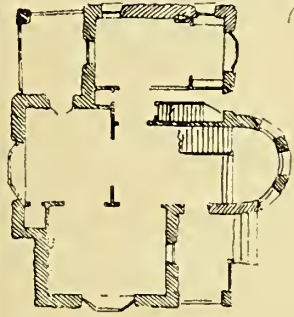
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# THE BIRCHES

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# THE INLAND ARCHITECT AND NEWS RECORD

INTERMEDIATE NEWS NUMBER.

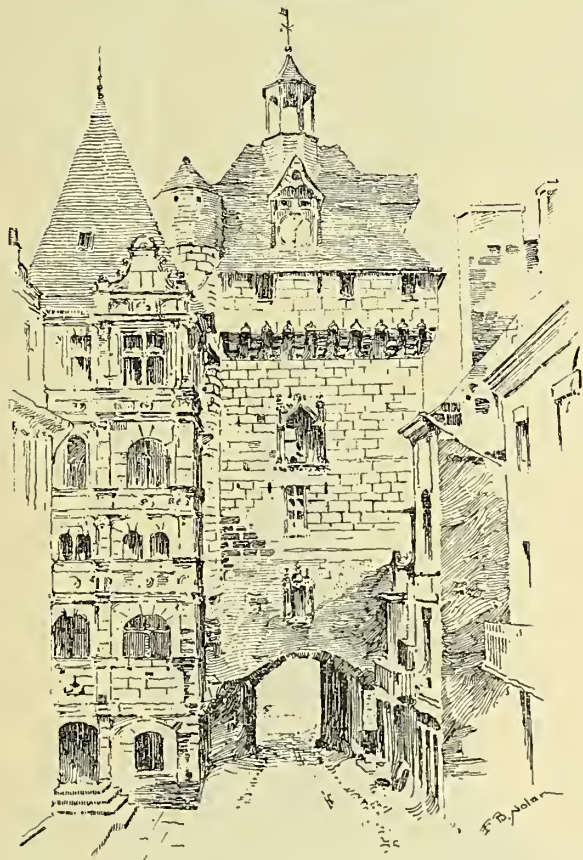
Vol. XIV.

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No. 6

## Domes and Towers.\*

BY J. H. MCNAMARA, ARCHITECT.



THERE are no features of architecture so pleasing as domes and towers. However beautiful may be the porticoed entrance, however bold the projected pavilions, or however varied or extensive the façade, the eye will single out the dome or tower, and with instinctive pleasure follow it up to the summit.

Though domes crown the grandest buildings in the world, I must confess that I never look on a dome with the same degree of satisfaction that I feel when looking on a tower.

No matter how much I may assume that all the necessary consideration has been bestowed on the principles governing domical construction, its theory of equilibrium and lines of gravity, yet I am unaccountably possessed of the idea that those gracefully swelling outlines cover a world of ingenious expedients to hide the actual construction of the towering mass, carrying on its interior so much sham work of lath and plaster; taking the form of anteaes and entablatures, heavy groupings of pedestaled victories and statued niches.

Of all the great domes that have been built in the past six centuries, not one can compare with the first aerial dome, that of Santa Maria del Fiore, at Florence, built in the twelfth century by Brunelleschi. In this alone do the outer and inner domes sweep upward in parallel lines, springing from the same arched base, and are the actual supports for the beautiful lantern surmounting them. The nearest approach to the honest constructions of Santa Maria is St. Peter's, at Rome, that was modeled after it in the fifteenth century, by Michael Angelo. Although its two domes do not run quite parallel, they well come under the weight of the lantern.

Both St. Paul's, at London, built in the sixteenth century, by Sir Christopher Wren, and the Pantheon, at Paris, built in the seventeenth century, by Antoine, have each three domes, springing from the same perpendicular base, but each sailing away in a direction for itself, looking as if each one was crowded down by the one above it. The Dome des Invalides, built in the sixteenth century, by Mansard, the originator of the "Mansard roof," is of the same class.

The cupola of the church of Santa Sophia, at Constantinople, built by the architect Anthemius, is a beautiful link between the grand aerial domes I have mentioned and the hemispherical dome of the original Pantheon at Rome. This latter had regular tiers of caissons from base to eye, and was the first step out of the brick vaults that covered all the circular temples of Pagan Rome.

The first known attempt at dome building was the tomb of Agamemnon, at Mycenae. It was formed by horizontal courses of large blocks of stone, each course projecting one beyond the other as they rose toward the eye; the projecting courses being afterward cut away to an even surface. Gwilt tells us that "it is the most ancient

in Greece, and it is a curious circumstance that at Drogheda, in Ireland, there is a monument whose form, constructions and plan of entrance resemble it so closely that it is impossible to consider their similarity the result of accident"; and on this point Gwilt believes in the hypothesis of the distinguished archaeologist Geoffrey Higgins, "that these works were built by the same race of people, who were the earliest enlightened and learned occupiers of Greece, Italy, France, Britain and Ireland; and that the language of the whole western world was the same, having the same system of letters, that of the Irish Druids, the alphabet in which is written the Irish manuscripts."

There is a painful similarity in the outward appearance of all the domes of the world. For when one is to be designed, St. Peter's or St. Paul's serves as the prototype. No matter how much talent the architect may command, his originality is ever environed by the outlines of these two domes. This is clearly illustrated in the case of Sir Christopher Wren, who displayed such wonderful resource in tower building, and yet, after three attempts at a dome, had to follow, generally, St. Peter's in outward form.

The use of wrought-iron in latticed truss and ribs, relieves the architect of our day of much anxiety in modern domical construction. This manner of construction has been successfully used in the dome of the St. Louis Custom House, which is as beautiful in outline as any of those I have mentioned. It is 75 feet in diameter and 185 feet high, from floor to top of lantern. It is the Grecian Corinthian order. This dome has passed through quite a siege of talent in its struggles for completion. Originally designed by a civil engineer, it stood, up to thirty-five years ago, on a circular base, rising slightly above the abutting roofs of the four wings of the building. Its appearance and color looked like an inverted pot. It then fell into the hands of a well-trained architect, who tore it down and designed a dome, in appearance and construction closely resembling the present one. But before the architect had time to carry out his well-matured study, through political influence he was removed, and a "boss carpenter" took charge of it. The boss carpenter put aside the architect's drawings and started out to be original—and succeeded. He began constructing the dome in sections of cast-iron, having a base 2 feet wide, and a depth at the eye, of 12 feet. When these sections began to kick out at the haunches, and collapse at the eye, the authorities got uneasy and called in an accomplished architect to investigate it. He was allowed to associate with him his brother architect, who was superseded by the boss carpenter, and the two architects made a thorough examination. Their calculations and geometrical drawings of the cast-iron sections revealed the fact that the lines of gravity passing from the eye of the dome through the sections—as put up—dropped eighteen feet, clear inside of the foundations of the ground floor. The boss carpenter's castings, which cost \$20,000, were condemned, taken down and sold as scrap iron. The dome was again started upward as designed by the first architect, and carried to completion by all succeeding architects. Standing in the center of the dome, you have a clear, uninterrupted view from the ground floor to the ceiling of the lantern.

This dome is again the center of a spirited controversy over some fine wall decorations by the late artist Winner, the famous delineator of Indian scenes. He designed for four panels in the dome and painted, in a beautiful manner, four historical American scenes: "De Soto discovering the Mississippi," "Marquette descending the Mississippi," "The attack, by Indians, of St. Louis" and "Buffalo on the plains at the foot of the Rocky Mountains." Supporting these pictures he painted the heads of Washington, Lincoln, Benton and Bates. All of these, with numerous allegorical figures, are now fading and scaling off, and the vexed question now being agitated by the admirers of the great artist is how to preserve his paintings.

Quadrilateral vault domes, such as those on the United States Custom House, 230 feet high, and the Four Courts in St. Louis, are effective for outward appearance, but leave no room for interior decorations. That of the United States Custom House is a fine example, having a good base and a fine sweep, coming easily under the weight of the lantern. That of the Four Courts is not so good, being too depressed at the lantern.

A novel feature of this latter design was four American eagles standing on pedestals at the base of the dome. They were of immense size and rapacious appearance, looking out on the street with outspread wings and outstretched necks, and hooked beaks wide open, as if about to swoop down on "a forgotten soldier." They are not there now. Tradition says they flew away upon hearing it proclaimed that a paltry million-dollar city hall was to be built in the adjoining park. They, proud birds, the golden offspring of a munificent county court, would not perch in front of this beggarly offering from the "new city charter."

There is more variety in the plans and dimensions of domes than in their appearance.

St. Peter's is square in plan, 139 feet in diameter and 450 feet high.

St. Paul's is octagonal in plan, 100 feet in diameter and 425 feet high.

The Pantheon at Rome is circular in plan, 140 feet in diameter and 145 feet in height.

The Pantheon at Paris is square in plan, 120 feet in diameter and 340 feet in height.

\*Paper read before the consolidation convention of the American Institute of Architects and the Western Association of Architects, at Cincinnati, November 21, 1889.



Santa Sophia is elliptical in plan, 115 feet in diameter and 180 feet in height.

Santa Maria del Fiore is octagonal in plan, 138 feet in diameter and 400 feet in height.

The Chapelle des Invalides at Paris is 50 feet in diameter and 323 feet in height.

The dome on our own grand capitol at Washington is 125 feet in diameter and 300 feet in height.

Towers preceded domes, as can be traced by the obelisks of Egypt, the columns in India, the Druidical pillars of Britain and the round towers of Ireland. And there is more room for the originality of the architect in tower designing, as the multiplicity and beauty of the towers of the various nations can testify.

Passing by the monumental columns, which exhibit no originality after the orders became known, we halt before the wealth of fancy and inspiration found in the Gothic towers. These are chiefly confined to the great cathedrals, such as the twin towers of Cologne, over 500 feet high, building from the eleventh to the present century. The whole school of Gothic architecture is embraced in this structure. The single tower of Ulm, over 400 feet high, built in the fourteenth century, and the equally beautiful tower of Strasburg, whose great beauty is its deep paneling and bold sculpturing, giving it a play of light and shadow on a sunny day that charms the artist. Strasburg, I believe, is the birthplace of the world's greatest artist in light and dark, Gustave Doré.

The towers of Notre Dame, at Paris, built in the tenth century, though not lofty, being but 200 feet high, are beautiful in detail. Mechlin can boast of a noble tower. But the most beautiful of all the Gothic towers is that of Notre Dame at Antwerp, from whose summit can be counted over a hundred steeples, and, in turn, from the sea over a hundred miles out can be traced this beautiful tracery in stone. And it is fitting that Rubens' masterpiece, "The Descent from the Cross," should have such a sanctuary.

Many of the civic buildings of Europe can boast of towers which are fine specimens of the Gothic, the most beautiful of which is that of the town hall of Brussels, some 200 feet high. This is of the florid Flemish Gothic. The fine tower of the Glasgow University buildings, 200 feet high, by Gilbert Scott, is somewhat marred by the angle finialed turrets, making it top-heavy.

A species of tower that has a fine appearance are those that occupy the place of a dome, and have a domical termination. The town hall of Bolton, in England, 270 feet high, is a fine example of this idea. That of the capitol at Albany, 250 feet high, is well begun and it is carried up in fine proportion for the first three stories, but it should have a domical termination twice the height given it.

By far the finest tower design in this country is that of the city hall at Philadelphia. This tower is 537 feet high, being the tallest in the world, for Washington monument, which is 13 feet higher, cannot be properly classed as a tower. The Philadelphia tower is not as well begun as either the Albany or the Bolton towers. It lacks the broad, rustic base and the well-defined gradations from story to story that mark the offsets of the stories in both the Albany and Bolton towers. But it rises majestically, with well-sustained variety in its face. Were the tower attached to the new Odd Fellows' building in St. Louis—223 feet high—more pronounced by a greater projection, and more liberally treated in the last story, its architect could claim for it a place in the front ranks of modern American towers.

The great beauty of towers, to my mind, is to see them start squarely from the ground, having the earth for a base. Nothing so offends my eye as a tower to first make its appearance astraddle of a roof. For these reasons the Campaniles command my admiration. They belong to the church, and are always found standing guard over the venerable pile lying sheltered at their base. From their lofty lanterns, the great bells call the faithful to prayer and remind man of his infancy, his manhood and his declining years as its warning peals ring out the "Angelus" at sunrise, at meridian and at sunset. They are nearly all in the Romanesque, that of St. Mark's being a fine specimen of this style. The loftiest is that of Cremona, Italy, being 395 feet high. Next comes one in Florence, 267 feet high. The best known and the most remarkable is the leaning tower of Pisa, in which is hung a green bell that never tolls but on the death of a criminal.

England can present one grand example in the clock tower of the new houses of parliament, 350 feet high, by Barry. And Ireland another, the Albert memorial tower at Belfast, 100 feet high. Barry's is purely perpendicular Gothic and very elaborate. The Belfast tower has the lantern Gothic, with the shaft and clock panel Romanesque. The city of St. Louis has two good examples of the Campanile, that of the Central Church, 155 feet high. In paneled shaft and open lantern, it somewhat, at a distant view, resembles St. Mark's. The other example is the new water tower, 200 feet high, which is very creditable to the designer.

Sir Christopher Wren, who was the first architect to classicise the Gothic, has strewn London with beautiful towers and one beautiful dome. It is most incomprehensible that the architect who designed St. Paul's could be the same architect who designed the first dome submitted by him to the Royal Commission—a pine-apple shaped cupola, surmounted by a six-story pagoda—and yet the number and beauty of his towers is simply marvelous. He never attempted the Gothic, yet was he very successful in his addition of the twin towers to Westminster Abbey.

St. Clement Dane's, St. Martin's, St. James' (Garlick Hill), St. Dunstan's in the East, St. Stephen's (Walbrook) and the three beautiful towers of St. Bride's, St. Magnus and St. Mary-le-Bow, at least half a hundred towers, spires and cupolas, rise before my vision as

objects rise when you move from them, composing a beautiful architectural perspective, having for its "point of picture" the great St. Paul's.

Wren's towers are towers from the ground up, invariably square and plain until the roof line is passed. And although the upper stories are often repeated, yet the offsets are so artistically defined by the use of the cinerary urn, pyramidal vases, and other ecclesiastical emblems, that the eye is satisfactorily led up to the distant vane.

Other of the English architects, such as Barry, Sir William Chambers, Smirke, Soane, Dance and Gibbs, have supplied London with towers that are fit companions for Wren's. In the Classics, St. Mary-le-Bow, by Sir William Chambers; St. Leonard's Shoreditch, by the elder Dance, and St. Martins-in-the-Fields, by Gibbs. This latter is equal to the best of Wren's but it has the great fault of rising behind a portico and astraddle of a roof.

Innumerable towers of great beauty, surmounted by spires, familiar to all architects, I have not mentioned, because my intention was to treat of the tower proper in opposition to the dome.

## Professional Conquest.\*

BY J. W. YOST, ARCHITECT.



THERE is a large field for professional conquest in view. Its acquirement will be fraught with perplexities and difficulties; its occupation is imperative, if the architecture of the country shall soon be up to a creditable standard of merit.

The building enterprises of the country, so far as all work of a public character is concerned, are in the hands of, and directed by, persons who have no special qualifications to determine either what ought to be built or how it ought to be done. When a building is to be erected, instead of it being the custom to have it controlled by the architects of the country, or by some persons skilled in building matters, it is usually put in the hands of a board or committee from which all architects are carefully excluded.

To introduce a different practice, and by this means make it possible to eliminate the faulty, systematize, harmonize and improve upon the meritorious in our public architecture, is a field for professional conquest. It is a field worthy of our best efforts to control. It can be gained only by sacrifices commensurate with the importance of the expected result.

Designs for buildings are secured either by competition or otherwise. For the present, and likely for many years of the future, a considerable share of our public buildings will begin their career through competition of one kind or another. As now conducted, competitions are not only not conducive to the highest achievement in an architectural sense, but are an incubus upon the profession. The excuse for keeping up the practice is twofold. First, to give everybody a chance; to afford the younger members of the profession opportunities to measure arms with those of greater experience and reputation. Second, to obtain for a given building the best possible design. As to the first, the profession will not object to a decrease in the number and elevation of their standard. As to the second, conducted as they are, the object sought is not attained. The chance to select a better design than any given one obtained without competition is lost, by reason of the fact that the average commission which

\*Paper read before the consolidation convention of the American Institute of Architects and the Western Association of Architects, at Cincinnati, November 21, 1889.



makes the selection is not qualified to determine which design ought to be selected. I speak, of course, of the great number of competitions which constitute the rule, not of the few exceptions where experts are called in and designs submitted under *nom de plume*. I think it is fair to say, as a rule, that if the best design in a given lot submitted be adopted, it is an accident rather than a likelihood. The buildings for which designs are obtained by giving commissions direct, to a certain extent, escape the objectionable results of competitions, inasmuch as there is usually free and full interchange of thought between the architect and those in charge, and by means of this the architect has a more favorable opportunity to control the whole character of the enterprise than where its general outlines have been made up as a target for the competing designers to shoot at.

The whole system of placing the management and direction of our buildings in the hands of persons who possess no special qualifications for it, whether they obtain designs by competition or otherwise, is a mistake. It is a wrong against the public itself which we are professionally bound to right as soon as we can reach the ear of those who control such matters.

The average board of commission is made up of intellectual men in other lines of vocation, and if called upon to decide anything in relation to their own business could do so with a fair prospect of having it properly and correctly done. But when a plan for a building comes before them no one of an average board can tell whether a building erected after the plan would please him or whether it ought to please him—no one of them could tell whether it is probably the best thing which can be done or not, and no one could tell, if it was the price of his eternal salvation, whether a building erected after the plans under examination would stand up or fall down. To say that this is ridiculous is to characterize it in terms entirely too mild. What commission anywhere, without legal talent, would undertake to decide a question of law? What board, without containing a physician, would be willing to decide a question of medical jurisprudence? What committee, without a musician, would undertake to decide whether a piece of music had been rendered perfectly or not? What man anywhere would be willing to either give or accept such authority, and with it the responsibility in any of these matters? How different the whole face of affairs when we come to matters of architecture! The public believes it necessary to grant, and those selected think it proper to accept, such responsibility. The result is what would be inevitable if the same lack of business sense should be exercised in any other direction. If you answer that these boards, either by competition or otherwise, engage an architect and trust to him, and depend upon his ability and judgment, then I will ask you what is the use of the board? Why intrust a commission with something everybody knows it knows nothing about, instead of putting it into the hands of people who could reasonably be expected to understand what was before them? If there is any use of having anybody but the architect rule over the matter, there is use in having somebody who can be an aid to him, instead of a hindrance. If, in order to have done the best thing which can be done, it is necessary to procure assistance for the architect, it is certainly proper to have such assistance possessed of some idea of what ought to be done, and what a given plan and specification will bring out when carried to execution.

It may be claimed that the architect does control the whole matter so far as the building is concerned—that the board or committee is expected to attend the formalities and the business part of the work.

I dare say that in some few instances this is true. If it was always true, one of the objections to the present system would be removed, but cases are rarities, by no means the rule, when the architect is left free to use his best judgment in all things pertaining to the building.

If, in all cases of competition, the designs were selected by a board of competent experts, and when an architect is employed his design should be his own, not that which will please the committee, much of the harm would be avoided. But even then, the benefit of intelligent counsel and advice, which would be valuable to the greatest architect in the country, and still more valuable to the younger members of the profession, would be lost. No man anywhere is so omniscient that his work would not be better of the criticism of a board of men of his own profession, even though something less than himself in ability. This would be gained under the system I suggest. Upon the other hand, the work of the weakest member of the profession is not likely to be improved by the suggestions of the average board. This contrast measures the difference between the present system and the state of affairs after this field shall be won.

Again, in the last twenty years much has been done to unshackle the hand of the designer, but this same unloosing of bands turns him into a field chaotic with historic design which is to supplement and guide his invention in the work of the future. One of us gleans from the field certain ideas, another other ideas, another, still other ideas, each following a tangent for himself, some learning better than others, but nobody learning so much as all.

If we are to have a national style, these lines of divergence must be brought to a parallel, the simply odd, the uselessly picturesque, the servility of copyism and the sterility of unstudied crudeness, from the work of each, must be excluded. Our work must tend toward a crystallization of the best to be found or invented. If this be true, I know of no one thing which would be a more potent agency in its accomplishment than the adoption of this plan.

The use of boards instead of individual experts and counselors will broaden criticism, give decisions a greater weight of authority and rid them of any supposed bias in favor of or against any particular style.

The one great fact that the final authority as to what shall be done in our public building enterprises is left to such persons as now control them accounts to a very large extent for the blunders committed,

and accounts for the fact that the grade of our public architecture is not up to what it ought to be. So long as it remains in such hands it can never occupy that position in relation to the architecture of other countries to which it is entitled.

I take it as indisputable in the interest of our profession, the interest of the architecture of the country and the interest of the general public, that a great change is desirable in this whole matter. But how can it be brought about? All may recognize that we are in the woods, but who knows of a pathway that leads to the sunshine? All can recognize the great work to be done, but who is able to cope with the difficulties we shall encounter in doing it? The present system is strongly entrenched in public favor. No matter how willing a public official may be to acknowledge his inability, he is immediately offended if someone suggests that a professional adviser be called in, and if he should even consent to that, he is quite sure to have it understood that it is only *advice* and not final *judgment* which he accepts.

An architect going into competition will ordinarily greatly jeopardize his chances of success by mentioning to a member of the board the fact that he would be glad to see the designs submitted referred to a board of experts for decision.

There is much more than really the question of deciding which, if a given number of plans shall be accepted, ought not to be in the hands of boards without education in matters of architecture. The control and management of the entire enterprise—everything that is included in the words, "how to build, where to build, what to build," should be left to the control of the profession entirely, not merely submitted to them for advice and clerical services. The idea of an architect preparing plans for a commission of architects and submitting plans in competition for a board of architects to decide upon may be a new idea, but it is a good one, nevertheless. If in an important building enterprise it is necessary to have an architect of skill and ability, it is by no means improper to have the value of his services supplemented by the advice of men who know as much about what is to be done as he does. It is written that "in a multitude of counsel there is wisdom," and matters of architecture were not excepted from the law.

When we undertake to improve upon the present practice we are at once confronted with difficulties. The matter of expense must be taken into account. Boards of professional men who make their living by their calling are not likely to render services such as those described without just compensation. The public is just beginning to appreciate the fact that the five per cent paid for the services of an architect is money well expended, but it will take some little time to bring the public up to believe that two or three per cent can be paid out to advantage in securing the services of such boards as I have described. We must establish the fact that this additional expenditure is, after all, a great economy before the public will be likely to accept it. That it will result in not only bettering the architecture, but actually saving money, is as clear as anything need be when all the facts are considered, but it will take some money out of the income of public officials who heretofore have acted in charge of building matters, and they will seriously object to having it done. I see, however, no insurmountable difficulties in either of these directions. We have brought the public up to believe that within the space of a few years that their interests are best subserved by employing a competent architect, even in small enterprises, and in less time we could demonstrate the economy of the practice I have suggested, and, through the pocket nerve of the public, could compel officials to accept the situation. There are, of course, boards in charge of new buildings who render their services, such as they are, without hope of financial reward, but even there it would be entirely within the range of possibility, even probability, that a board of competent persons could save in the actual cost of their building, to say nothing of its value when once erected, much more than the probable two per cent which their services would cost. But how are such boards to be found? Who is to select them, and who shall be ready to serve when requested? At first the question seems difficult, and in the present state of our profession next to impossible to answer, but we are not at a "standstill." Every demand for such services would in a few years be abundantly met. If you ask me now to name the persons who shall serve in this capacity, I am not able to answer you. I think it must be frankly admitted that at this time there is no set of men specially qualified for and desiring to hold such situations; but open the way for such work and the time will be short until the supply will be equal to all demands. It will be impossible now to lay out any plan for carrying these ideas into effect which shall not have to be altered to meet future requirements as experience develops them. I think no man is wise enough now to foresee all the difficulties which might arise in undertaking to substitute professional for non-professional authorities in building matters. Judging by the experience of the past, it will be some years before we could perfectly carry out the reform. But we are growing in that direction.

I know that we have no national style of architecture, no complete harmonizing of views as to what direction the detail in our design should take.

I know we have had too little personal affiliation with, and too little friendship for each other, particularly in the newer portions of the country. I know we are unmerciful critics of each other's work, of everything not in accordance with our individual ideas or the vogue of the time. But for all that, we are fast becoming less biased in our judgment and more reasonable in our treatment of each other and each other's work. We are rapidly approaching a toleration of differences of opinion. We are speedily coming to realize the fact that if we have no respect for each other, and the work each other does, the general public will have still less for all of us. Some



of us may not take kindly to criticism, others may be disposed to resent the criticism of a professional board as an intrusion upon the "sanctum sanctorum" of the designer. Some of us may prefer to be allowed to convince an ignorant committee of the superiority of our ideas, some of us may not think anyone else ought to have the impudence to make a suggestion in regard to what we have in hand; but all these cases will be rare, and as criticisms become more intelligent, and the members of the profession are brought up to entertain a better feeling for each other, they will practically disappear. As we become better educated and more skillful in our work we will be still more able to recognize merit in the work of our brethren. When we shall possess sufficient professional patriotism to see our highest personal advantage in the greatest possible improvement in the architecture of our country, a foundation will be laid upon which we can build our work and ourselves up to the standards of the old masters.

### Evaporation of Water in Traps.\*

BY GLENN BROWN, WASHINGTON, D. C.

**A**LTHOUGH syphonage and back pressure are the principal causes of failure in the ordinary plumbers' trap, nevertheless water in them will evaporate, and thus break their seal.

It is important to know how long they will withstand the effects of evaporation. The opponents of trap ventilation claim that the evaporation produced by the circulation of air through the soil and vent pipes is sufficient to destroy the seal of traps in ordinary use. If this is a fact it is a serious blow to the usefulness of trap ventilation. Mr. J. P. Putnam, some years ago, made experiments on trap evaporation, the results of which have been extensively published. Unfortunately, he made his experiments on the same stack of pipes, and conducted them at the same time with his experiments on trap syphonage. Anyone can see how great the opportunity was for errors, and further, how impossible it would be for anyone to judge how much of the water was taken out by syphonage, and how much by evaporation.

When the traps were tightly plugged on the house side, the partial vacuum of water caused by the discharge of water from the fixtures above would make the air between the plug and the water expand and force out a small amount of water from the trap. Who can tell how much?

Who could measure the amount of air that might pass through the openings left by an imperfect plug? For these reasons I consider the experiments of Mr. Putnam entirely unreliable.

Some time ago I made a limited number of experiments on the subject at the Museum of Hygiene, United States Navy Department. They were made some time after, and entirely separate from the experiments which I made at the same place on trap syphonage. Of course, the amount of water evaporated would be in proportion to the surface exposed and the rapidity with which the air coming in contact with this surface was changed. The most effective trap would be the one with the smallest surface and the greatest depth of seal.

I experimented with five traps—Barrett's, Cudell's, Adee's, a 3-inch, and a 1½-inch S trap. All were vented. It was assumed as a fact that the vented traps would be more affected by evaporation than the unvented ones. The traps used represent different areas in proportion to their depth.

The small S trap had the smallest exposed surface and the greatest depth. To give them the severest test for evaporation, they were so placed that a strong current of heated air passed through the sewer branch of the trap and out through the vent pipe, a stronger and more continuous current than they would be subjected to in ordinary use. The broad surface traps lost their seal, as was expected, more rapidly than the ones with a small surface.

The height of the water was measured at different periods, and a steady decrease was shown, being a little greater the last six days than in the four preceding days. This was probably owing to the increased heat of the current of air due to a cold spell. The traps had lost the following amount of water after twelve days: Barrett's, ⅝ inch; Cudell's, ⅝ inch; Adee's, ¾ inch; 3-inch S, ½ inch; 1½-inch S, ¼ inch. You see that a small S trap had lost only ¼ inch of its seal in twelve days. The seal was an inch and a quarter deep. At the same rate it would have taken sixty days to have broken the seal with the help of a continuous current of heated air passing through the vent pipe to change the particles of air which come in contact with it. I had expected, under the circumstances, to find the seal of the traps broken in a few days. Is it not possible that there is a small column of air comparatively quiescent between the water in the trap and the current passing through the vent, as shown in the sketch?

Although the examinations made of the height of water in the trap were limited, I think the results are ample to establish the fact that the ordinary S trap vented will not lose its seal by evaporation for long periods, and if the traps are filled even once in two months, it will be all that is necessary to keep their seal intact.

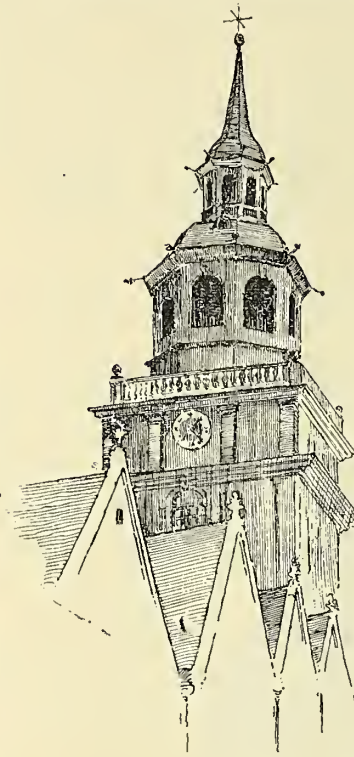
The experiments in trap syphonage (read before the American Institute of Architects' Convention held in New York) proved that a simple S trap, properly vented, was safe from failure by trap syphonage and back pressure, while all traps unvented were liable to fail from either back pressure or syphonage. These later experiments prove that the S trap vent is safe from evaporation during long periods.

I would deduct from the two sets of experiments: first, the S trap, properly vented, is the best form to use; second, no trap should be used without ventilation.

\* Paper read before the consolidation convention of the American Institute of Architects and the Western Association of Architects, at Cincinnati, November 21, 1889.

## The Consolidation Convention of the American Institute of Architects and the Western Association of Architects.

COMPILED FROM THE TRANSCRIPT OF THE OFFICIAL STENOGRAPHER.



**O**N November 20, at Cincinnati, the members of the American Institute of Architects and the Western Association of Architects met in the assembly hall of the Burnet House, and carried out the long-contemplated scheme of consolidation. Numerically, the assembly was the largest that the architectural profession has seen in this country.

The following is the registered attendance:

George M. Baxter, Jr., and wife, Syracuse, N. Y.; Joseph Blaby, Palmyra, N. Y.; L. S. Buffington and wife, Minneapolis, Minn.; J. W. Yost, Columbus, Ohio; J. H. Kirby, Syracuse, N. Y.; James G. Cutler, Rochester, N. Y.; D. P. Clark, Bay City, Mich.; Walter R. Forbush, Cincinnati, Ohio; George W. Rapp, Cincinnati, Ohio; Charles Crapsey, Cincinnati, Ohio; George W. Thompson, Nashville, Tenn.; Henry Gibel, Nashville, Tenn.; A. F. Rosenheim, St. Louis, Mo.; Luther Peters, Dayton, Ohio; S. R. Burns, Dayton, Ohio; J. H. Pierce, Elmira, N. Y.; William G. Walker, Rochester, N. Y.; E. L. Walter, Swanton, Pa.; George M. Goodwin, Minneapolis, Minn.; Jeremiah O'Rourke, Newark, N. J.; Charles I. Williams, Dayton, Ohio; Fred H. Gouge, Utica, N. Y.; William S. Wicks, Buffalo, N. Y.; T. J. Lacey, Binghamton, N. Y.; William Rotch Ware, *American Architect*, Boston, Mass.; Charles C. Hellmers, Jr., St. Louis, Mo.; W. W. Carlin and wife, Buffalo, N. Y.; John C. Smith, Harrisburg, Pa.; Charles K. Ramsey, St. Louis, Mo.; Louis C. Bulkley, St. Louis, Mo.; George B. Ferry, Milwaukee, Wis.; Sidney Smith, Omaha, Neb.; Augustus Eichhorn, Orange, N. J.; R. C. McLean, *THE INLAND ARCHITECT*, Chicago, Ill.; Oscar Cobb, Chicago, Ill.; George W. Kramer, Akron, Ohio; Robert T. Brown, New York; M. S. Mahurin, Fort Wayne, Ind.; E. Anderson, Cincinnati, Ohio; A. O. Elzner, Cincinnati, Ohio; George Cary, Buffalo, N. Y.; Henry O. Avery, New York, N. Y.; Charles E. Illsley, St. Louis, Mo.; James W. McLaughlin, Cincinnati, Ohio; E. N. Lamm, Winchester, Ky.; E. A. Kent, Buffalo, N. Y.; Samuel Hannaford, Cincinnati, Ohio; Max Reutti, Hamilton, Ohio; H. E. Siter, Cincinnati, Ohio; S. E. Des Jardins, Cincinnati, Ohio; John H. Boll, Cincinnati, Ohio; William W. Franklin, Cincinnati, Ohio; S. S. Godley, Cincinnati, Ohio; Robert E. Dexter, Dayton, Ohio; O. C. Wehle, Louisville, Ky.; Merritt J. Reid, Evansville, Ind.; L. Muller, Jr., *THE INLAND ARCHITECT*, Chicago, Ill.; E. E. McConaughy, *Western Architect*, Denver, Colo.; Amos J. Boyden, Philadelphia, Pa.; Edward Hazlehurst, Philadelphia, Pa.; George J. Wells, Philadelphia, Pa.; Samuel Huckel, Jr., Philadelphia, Pa.; Theo. M. Baker, Philadelphia, Pa.; James Murphy and wife, Providence, R. I.; S. J. Hall, Columbus, Ohio; H. W. Brinklehoff, New York; Bernard Vonnegut, Indianapolis, Ind.; Robert Stead, Washington, D. C.; Oscar D. Bohlen, Indianapolis, Ind.; W. M. Poindexter, Washington, D. C.; Glenn Brown, Washington, D. C.; Alfred C. Clas, Milwaukee, Wis.; John F. Cook, Chillicothe, Ohio; J. F. Baumann, Knoxville, Tenn.; William W. Clay, Chicago, Ill.; Albert B. Baumann, Knoxville, Tenn.; George Beaumont, Chicago, Ill.; A. J. Bloor, New York; Edward I. Nickerson, Providence, R. I.; Edward H. Kendall, New York; John W. Root, Chicago, Ill.; Warren R. Briggs, Bridgeport, Ct.; Henry Lord Gay, Chicago, Ill.; R. W. Gibson, New York; Frank W. Angell, Providence, R. I.; Alfred Stone, Providence, R. I.; Norman S. Patton and wife, Chicago, Ill.; William Martin Aiken, Cincinnati, Ohio; W. R. Brown, Cincinnati, Ohio; F. S. Hunt, *Northwestern Architect*, Minneapolis, Minn.; Zach. Rice, Detroit, Mich.; Lovell H. Carr, New York; John Eisenmann, Cleveland, Ohio; Clarence O. Arey, Cleveland, Ohio; George H. Smith, Cleveland, Ohio; C. C. Burke, Memphis, Tenn.; A. C. Bruce, Atlanta, Ga.; L. D. Grosvenor, Jackson, Mich.; S. A. Coburn, Cleveland, Ohio; H. C. Lindsay, Zanesville, Ohio; Guy Tilden, Cantou, Ohio; L. J. Schaub, Chicago, Ill.; E. T. Littell, New York; Frederick Baumann, Chicago, Ill.; S. M. Randolph, Chicago, Ill.; Levi T. Scofield, Cleveland, Ohio; A. E. Raseman, Detroit, Mich.; John M. Donaldson, Detroit, Mich.; E. W. Arnold, Detroit, Mich.; James F. Alexander, Lafayette, Ind.; A. P. Cutting, Worcester, Mass.; S. V.



Shipman, Chicago, Ill.; S. A. Treat, Chicago, Ill.; W. L. Plack, Altoona, Pa.; E. S. Hammatt, Davenport, Iowa; E. O. Fallis, Toledo, Ohio; C. Powell Karr, art editor *Building*, New York; E. T. Carr, Leavenworth, Kan.; Theodore C. Link, St. Louis, Mo.; J. H. McNamara, St. Louis, Mo.; M. H. Baldwin, Memphis, Tenn.; J. V. Gearing, Detroit, Mich.; F. Houghton, *American Builder*, Cleveland, Ohio; R. M. Hunt, New York; W. E. Harris, Ottawa, Kan.; Charles A. Cummings, Boston, Mass.; Charles Rudolph, Chicago, Ill.; C. J. Furst, Chicago, Ill.; C. A. Wallingford, St. Paul, Minn.; H. C. Kendall, *Cincinnati Commercial*; H. E. Runion, *Times-Star*, Cincinnati, Ohio.

PROCEEDINGS OF THE WESTERN ASSOCIATION OF ARCHITECTS.

According to the programme, the Western Association was called to order at 10 o'clock, and President William Worth Carlin took the chair, stated that the calling of the roll would be dispensed with, and proceeded to read the following address :

PRESIDENT CARLIN'S ADDRESS.

GENTLEMEN OF THE WESTERN ASSOCIATION OF ARCHITECTS.—The position in which I find myself placed by your votes of one year ago, has, among its other duties, laid upon me the responsibility of addressing you today, a duty which I approach with mingled feelings of pride and regret. When I think of the standing and dignity of my predecessors, a feeling of great timidity in venturing upon the task, tempers whatever pride and enthusiasm I might have entertained, and I feel entirely unable to say what would be the most fitting words on this occasion.

I do not need to tell you that this is the last meeting of the Western Association of Architects in its present form, or to rehearse to you the causes which have contributed to the movement of which this convention is the culmination. The origin of the two bodies which meet here today to complete the consolidation of their interests and future usefulness, as well as the good work which they have accomplished, are matters of history, and familiar to nearly all of their members.

The work of the joint committee, composed of members from both bodies, is represented by the draft of the constitution and by-laws, which has been accepted by the letter ballot, and which will come up for discussion and amendment before its final adoption. Although it has been thought advisable to retain the name and continue the corporate existence of the American Institute of Architects, which is known and respected in every civilized country of the globe, it has also been thought best to radically change the methods of conducting the business, and to borrow largely from the constitution and by-laws of the Western Association. The strictly democratic form of government which has been so successfully demonstrated by the latter, has been retained, and the new association will be formed on an even basis, and absolutely with but one grade of membership, except that of natural leveling which does not depend on the votes of any board or body, and which is free and open to all.

Neither has it been deemed advisable to provide for any system of representation, but rather to throw open the doors of our conventions to all members, on an even footing, having everyone who does not attend feel that, as far as to his vote and right to be heard, he is the peer to anyone present. This will stimulate and encourage the attendance instead of the reverse, and it is in a great measure to the interest felt in the attendance at our annual meetings that our influence for good in the future is to come. We must make membership seem valuable to the average architect, or he will not desire or consummate it, and our strength lies largely in numbers and in spreading our influence over as large an area, and into as many localities and offices as possible, while the annual conventions and stand of membership should by all means be kept up to the highest point of interest and usefulness.

But it is not to the annual conventions that we must look for the greatest results of the Association in the future. For some portions we must look to the city and state associations, who can organize and carry forward their work in the several branches, using the annual convention as a place for renewing old friendships and making new acquaintances, for viewing the works of our confrères under most favorable circumstances, but mainly for the reception of reports from the various local organizations, and for discussing and mapping out the line of policy to be pursued in the coming year.

Although we have done good work in the past, there is much that remains to be done to place architecture where it rightly belongs, at the head of all learned and scientific professions, and to bring it before the public in its proper light. This can only be obtained through a proper education; first, of ourselves; second, of the general public. We need to cultivate acquaintance with each other, and to establish a code of professional ethics which shall embrace the proper relations to be established, not only between the architects who may have business dealings together, but also between the architect and client, and which shall partake of a legal statue in so far as the duties and responsibilities of an architect extends when engaged in carrying out the orders and ideas of his employers, as to what should be expected of him in the discharge of his duties as expressed in our schedules. There is a fruitful field before us in this direction, and one which should claim our best efforts and attention.

We have much before us in the line of improving the present system of designing our government buildings, and in bids we cannot hope to accomplish the needed reform until we are able to impress upon the public mind some of the principles which should govern the carrying out of such undertakings, and bring those in authority to see the manifest advantages which would be the result of placing the designing of buildings intended for different portions of the country, and covering the widest range of materials and uses, in the hands of professional men who were constantly dealing with the same factors and conditions in their every-day work.

We should have a better understanding on the subject of competitions, and in this also need that the public be brought to see the matter in a different light than the one generally accepted. In other words, we must respect ourselves before we can expect others to respect us.

A great deal might also be said in favor of a bureau of legal intelligence, which should include the best attainable talent, to be retained as a sort of district attorney for the whole association to assist in defining and establishing the rights of the members who most stood in need of such service, and should also include the collecting and compiling of all matters of legal record pertaining to building interests. The value of such an adjunct becomes apparent when we attempt to find a legal authority who is at all familiar with such matters.

This much of our work and many other subjects which might be brought forward, must, if undertaken at all, be done by the National Association. The various state associations will each have their individual interests to foster and improve, and it is largely through these that we must look for improvement in matters of legislation. Especially will this be true of the measures designed to legalize and license the practice of the profession. One of the principal difficulties to be encountered in this direction is the fact that the general public, even including our lawyers, legislators and members of other professions, have never given any thought to the matter, or at most have supposed that there was some existing law or regulation. The investigation of the subject in the State of New York has developed the fact that the matter only needs to be brought to the attention of our public men and before the press to receive their hearty and unqualified indorsement and support, and it is considered probable that such a bill will be passed by the next legislature. If every state association will accomplish this result it will have justified its existence.

There are other reforms (if I may be allowed the expression) which we as a profession stand in need of. We need better methods of testing the various materials and appliances of which our buildings are composed, and one whose indorsement should mean something more than those with which we are usually flooded, and which should stand for the professional brother as the word or letter from a well-known authority on the subject. We also need a better plan of education for our draftsmen than that which is within reach of the

average student in an architect's office. It is of infinitely more importance that they should be able to detail a window frame or other portion of a building in such manner as to admit of its proper construction and service or correctly compute the quantities and dimensions of a building and make complete bills of material than that they should design a Greek god in solid bronze (made of galvanized iron) to adorn the façade of a city front, or that they should be able to construct (on paper) some of those wonderful creations which are intended to be perpetuated for all time in hemlock scantling and shingles.

It is to the work of city associations and individual members of the profession that we must look for the initiative in this direction. There is much which can be done by concert of action, through local committees, lectures, readings, etc., similar to the law schools which have been established in some of our cities; but the greatest field open to us in accomplishing the desired reforms is through the medium of the press. We, as a profession, do not write and talk enough about the subjects with which we are most familiar. An interesting article can always be written by a person who has given his subject much thought and investigation. When the physician, chemist or other professional student makes an important discovery, or comes across anything unusual in the course of his daily practice, he at once either writes the matter up for the journals or makes it the subject of a lecture before a class of students.

When we think that there is no more interesting subject to the average citizen than that of a building, and that outside of the publication of the exteriors and occasional plans of important or interesting buildings, often accompanied by a description written by a reporter, whose knowledge of the subject was confined to "splendid proportions," "stately magnificence," and kindred phrases, how little we are able to read that treats of the work of today.

Why should we not have lecture courses for the increase of general architectural knowledge, and to which the draftsmen of the various localities should be especially welcome, as well or better than many of the similar entertainments, so called, with which the halls in our cities are filled? We must take the initiative in this matter if anything is to be accomplished, and not only through the committees which may be appointed, but also through the individual work of members, either working singly or in groups, self-appointed, to carry the good work forward. The time and energy so spent cannot be counted lost, even though the results are not immediately apparent. The recluse who shuts himself up with his work and his books, or the man who devotes his whole thought and attention to his own special branch without paying attention to what is being done around him, can never hope to attain the eminence of the man who constantly circulates among his fellows in the same line, who is as ready to give as to receive a good suggestion. It is an admitted fact that the teacher is as much benefited as the pupil. Much more might be said in support of the theory, but this paper has already far exceeded the limits laid down. We know there are many among you who have deemed it unwise to consummate the union between the two bodies about to be joined in wedlock, thinking this association sufficient unto itself; but, though holding these opinions, were willing to be governed by the majority, and lend all possible assistance to the success of the plan if adopted. It is earnestly hoped that the step which has been taken will never be regretted by any of you. If the same earnestness and vigor which has characterized your work in this association be carried forward and made a part of the new Institute, the Western Association of Architects will have justified its comparatively brief existence.

The American Institute of Architects, which is to be formed today from the members of the former bodies, is coming into existence under most auspicious circumstances, representing, as it does, a country rich in possibilities, in prosperous financial circumstances, at peace with all the world, just awakening to the fact that its cities need rebuilding on a better plan, and with more enduring materials and increased facilities for comfort and usefulness, about welcoming to its shores the representatives of all nations to inspect a world's fair, which will, without doubt, surpass in extent and magnificence any previous undertaking (and which will be located at Buffalo, half way between New York and Chicago). The future of this association none can foretell. It is the largest and most powerful body of architects on the face of the globe. Its sphere of usefulness is unlimited. It seems possible for it to mold the future of the profession in this country as a mass of clay, and by taking advantage of the opportunities before it, profiting by the experiences of the past, the architects of the next decade might be said to have the world at their feet.

The secretary then stated that he had not read the names of members who were, according to the treasurer, in arrears, as no one was entitled to vote who was delinquent in dues.

The President: The next order of business will be the report of the Board of Directors.

The Secretary: I see our programme calls for the reports to be made to the separate associations. It was my understanding that at the joint meeting in New York it was understood that all reports should be made to the joint convention.

A Member: "Referred to the joint convention," read in each body and referred to the joint convention?

The President: I would state that was the understanding there, all the way through, that each body would make its reports, excepting only the report of the treasurer; that after these reports were received it would be competent for someone to refer them to the joint convention and not considered by this body.

Sidney Smith, of Omaha, chairman of the Board of Directors, read their report, which was, on motion, accepted and referred to the joint convention. The report is as follows:

REPORT OF THE BOARD OF DIRECTORS OF THE WESTERN ASSOCIATION OF ARCHITECTS.

The subject of consolidation with the American Institute has occupied so much time during the year that other topics have, to some extent, been crowded out.

The Board held a meeting at Chicago on January 29, at which the report of the Joint Committee on Consolidation was received. Several amendments were made by the trustees of the Institute. The report was accepted and adopted with these amendments, and sent to the association for a letter ballot.

A second meeting was held at Chicago on May 20 to 22, at which the ballots on consolidations were opened and counted. The following was the result of the ballot:

Total number of members.....	345
Necessary to carry consolidation, two-thirds of whole.....	230
Affirmative votes .....	262
Negative votes .....	3
Total.....	265
Not voting.....	80
	345

The affirmative ballots being in excess of the necessary two-thirds, the resolution in favor of consolidation was declared adopted.

On September 17, the directors met at Chicago and considered applications for membership. Messrs. Sidney Smith, W. W. Carlin, S. M. Randolph, Charles Crapsey and Secretary N. S. Patton then went to New York to hold a joint session with the trustees of the Institute.

The joint session was held at the headquarters of the Institute in New York, September 19.

There were present, on the part of the Institute, Messrs. Hunt, Kendall, Le Brun, Littell, Clay, Frederick, Stone, Hatfield, Gibson and Secretary Bloor.

The following action was taken by the joint session and ratified by each board separately:

1. That Cincinnati be the place of holding the joint convention.
2. That November 20, 1889, be the date of opening the same.
3. That the following gentlemen be the Joint Committee of Arrangements:



E. H. Kendall, A. J. Bloor, on behalf of the American Institute; Chas. Crapsey, N. S. Patton, on behalf of the Western Association.

4. That the order of proceedings at the opening of the joint convention shall be

*First.* Separate action by the Western Association of Architects.

*Second.* Separate action by the American Institute of Architects.

*Third.* Joint and continuous action by the consolidated organization.

There have been two ballots for new members during the year under the new arrangement permitting a letter ballot at any time when the names have been approved by the Board of Directors. At these ballots the following fourteen architects have been elected to membership:

O. G. Traphagen, Duluth, Minn.  
George H. Smith, Cleveland, Ohio.  
John Eisenmann, Cleveland, Ohio.  
John N. Richardson, Cleveland, Ohio.  
H. R. P. Hamilton, St. Paul, Minn.  
John N. Coxhead, St. Paul, Minn.  
Reynolds Fisher, Chicago, Ill.

George Hancock, Fargo, Dak.  
Clarence H. Johnston, St. Paul, Minn.  
John H. Boll, Cincinnati, Ohio.  
Frank L. Lively, Chicago, Ill.  
Theodore Carl Link, St. Louis, Mo.  
E. N. Lamm, Winchester, Ky.  
George Beaumont, Chicago, Ill.

During the year two of our members have died: Mr. Edward Baumann, of Chicago, and Mr. S. A. J. Preston, of Los Angeles, Cal.

The Board has dropped from the roll the names of several members for non-payment of dues for one year, and has directed that no names can be reported to the joint convention unless all dues have been paid.

SIDNEY SMITH, *Chairman*,  
W. W. CARLIN,  
CHARLES CRAPSEY,  
A. VAN BRUNT,  
F. BAUMANN,  
S. M. RANDOLPH.

The President: The next report in order is the report of the Committee on Metric System. We will omit this report for the present and call for report of the Committee on Ethics. If that committee is not present we will call for the report of the Committee on Consolidation of Architectural Associations. (Also omitted.)

The next report in order is the report of the Committee on Statistics for Competitions.

#### REPORT ON STATISTICS OF COMPETITION.

This committee has the honor to report that in view of the ascertained scarcity of authentic and valuable statistics on competitions, its powers were enlarged at the last convention of this body, and it was authorized to attempt to secure amelioration of the ordinary terms of competitions wherever favorable opportunity might offer for its intervention.

In accordance with these instructions the chairman soon afterward addressed a note to the managers of a competition in a large western city, pointing out the most objectionable of the terms offered, which gave no protection whatever to competing architects, and offering, if desired, to indicate such changes in the terms as experience had shown to be necessary to the proper conduct of such enterprises, and to enlist the participation of reputable members of the profession. A copy of this note was sent at the same time to a leading architect in the same city, inviting correspondence if the further interposition of the committee was desired. No reply was received to either letter.

In co-operation with several St. Louis architects, this committee has been more successful with the St. Louis City Hall competition. Every modification in the terms which it has proposed has been granted willingly, and the code finally adopted is believed to comprise practically every condition which architects are agreed upon as necessary, and to be one of the most comprehensive, enlightened and equitable documents of the kind which have ever been put forth by any municipality or other body desirous of securing competitive designs from architects. The credit for this result is due, however, quite as much to the assistance of St. Louis architects, individually, as to your committee—a most satisfactory harmony having prevailed throughout.

It is the belief of your committee that this St. Louis code is destined to form a precedent of the highest value in influencing the conduct of all subsequent enterprises of this character. While neglecting no interest of the city, as the promoter of the competition, its terms toward architects are so fair and comprehensive, and so adequate to the recognized necessities of such contests, that its adoption marks an era in the history of this vexed subject. It is confidently believed that in many cases a reference to this document will be entirely sufficient to secure the same conditions from other competition managers.

With this view your committee presents herewith a copy of the code for the St. Louis City Hall competition, and asks that it be filed as an appendix to this report.

#### IN REGARD TO THE GENERAL SUBJECT OF ARCHITECTURAL COMPETITIONS.

*First.* Our observation leads us to concur in the already established opinion that, as usually conducted, they are not only unnecessary, but positively detrimental to the profession and to the architecture of the country. Clients do not gain thereby in the quality of architectural services received, or the quality of the designs adopted.

This results not so much because it would be impossible to select from the number submitted a better design than any given one obtained without competition, as from the method in which competitions are usually decided. It rarely occurs that expert juries are called in, and when they are their decision is treated as suggestive rather than as conclusive, the final judgment being rendered by a committee, not one of whom even pretends to know anything about architecture.

*Second.* One difficulty in the way of accomplishing more by your committee is the fact that we frequently do not hear of competitions until it is too late to secure any modification of the terms offered.

If the members of the profession, upon hearing that a competition was contemplated, would notify your committee at once, and in the meantime refrain from signifying any acceptance of unsatisfactory terms until we could communicate with the parties inviting plans, we believe it would be possible in many cases to arrange for better terms. If we failed no harm would result from the effort.

*Third.* As many plans are usually submitted which are not paid for, and those accepted are furnished at the usual rate, the whole competition business is financially detrimental to the profession. Even the successful competitor is not only put to the risk of entirely losing his work, and is compelled to make himself a kind of insurance company, but he is actually put to greater expense and trouble than he would be if employed without competition.

In order to institute any kind of intelligent comparison between plans, it is necessary to incur more expense in the preliminary studies than if there were no competition. There being no free interchange of thought as to requirements between the client and competing architect, it often occurs that competitive plans must be amended to a great extent after the decision is made, and at large additional expense. Your committee are unable to see why the successful competitor—to say nothing of those whose plans are not adopted—should be compelled to render all this extra service, brought about on account of the competition, without receiving any remuneration therefor. Your Committee would therefore recommend that in the schedule of charges for professional work the rate for competitive services be fixed at *six* instead of *five* per cent, charging two per cent for preliminary studies rendered in competition.

On motion, this report was read by name only, and the final reading of the report referred to the Joint Committee. The other reports called for were not read at this time.

The report of the Committee on Uniform Contracts was then read by Mr. Treat, as follows:

#### REPORT OF COMMITTEE ON UNIFORM CONTRACTS.

*To the Western Association of Architects:*

The Committee on Uniform Contracts begs leave to report that since the last convention the authorized publishers of that form have distributed at least 65,000 copies of the blanks. At the time the report was made a year ago the chairman

requested that suggestions of improvements be made to him in writing. No such suggestions have been made, and it was thought hardly necessary to call a meeting of the committee. The resolution adopted at the last convention, requesting this committee to prepare a form "that shall serve as a basis of contract between architect and client" has not been complied with, although your committee are well aware of the advisability of such proceeding, and are of the opinion that some such form should be generally adopted by the profession, and recommend that any future committee which may be appointed take this matter in hand.

Respectfully submitted,

SAMUEL A. TREAT,  
WILLIAM W. CLAY,  
J. F. ALEXANDER.

On motion, this report was received and referred to the joint convention.

Mr. Patton here read the report of the Committee on Metric System, as follows:

#### REPORT OF COMMITTEE ON THE METRIC SYSTEM.

Your Committee on the Metric System has found during the year only one opportunity that gives promise of any immediate result. The Congress of American Nations, now in session at Washington, has for one of its objects the establishment of a uniform system of weights and measures in the custom houses of this continent.

We have sent a petition to the delegates from the United States, urging the adoption of the metric system. If the congress shall take action to this effect, it will have an important bearing on the ultimate adoption of this system throughout our land.

We recommend the continuance of a committee to follow up this subject until the general adoption of the metric system shall render such a committee unnecessary.

Respectfully,

NORMAND S. PATTON,  
E. T. MIX,  
G. W. KRAMER.

The President: Gentlemen, if there is no objection, this report will take the same course as the preceding. We have two or three other committees which should report, of two of which Mr. Adler, of Chicago, is chairman. He is not present, and if there is no objection these reports can be carried over to report to the joint convention if they are presented. If there are no other reports in the hands of members, the report of the treasurer will be in order.

The treasurer, Mr. Treat, then read his report, which was, on motion, referred to the Auditing Committee appointed by the president, and consisting of Messrs. James G. Rider, of Rochester, George B. Ferry, of Milwaukee, and C. C. Hellmers, of St. Louis.

The report is as follows:

#### REPORT OF TREASURER, WESTERN ASSOCIATION OF ARCHITECTS.

*S. A. Treat, treasurer, in account with the Western Association of Architects.*  
DR.

1888—To balance from last report.....	\$ 725 81
1889—	
November 14. To cash from initiation fees and dues .....	1,600 00
	\$2,325 81
CR.	
By cash to date as per accompanying vouchers.....	\$1,885 82
By treasurer's check for balance in treasury.....	439 99
	\$2,325 81

The President: Gentlemen, is there any other business in the hands of the members to come before the Western Association? If any member has anything to bring before this association, let him present it.

On motion, the convention adjourned *sine die*.

#### PROCEEDINGS OF THE AMERICAN INSTITUTE OF ARCHITECTS.

Immediately after the adjournment of the Western Association of Architects, the president of the American Institute of Architects called that association to order, and addressed them as follows:

#### PRESIDENT HUNT'S ADDRESS.

FELLOWS AND ASSOCIATES OF THE AMERICAN INSTITUTE OF ARCHITECTS.—Thirty-two years ago a few architects convened in the city of New York for the purpose of considering the expediency of organizing a professional society, the object of which, as set forth in the constitution, was to unite in fellowship the architects of this continent and to combine their efforts so as to properly promote the artistic, scientific and practical efficiency of the profession. This resulted in a constitution adopted in February, 1857, and incorporated in March of the same year, as the American Institute of Architects. The continual and rapid growth of the requirements of civilization, the immense distances between the great business centers of the East and West, made it advisable to establish chapters as integral portions of the Institute, and in order to compensate for these and other difficulties, the federal system of local organizations was adopted in 1867 as the best method of reaching directly the necessities of the profession throughout the country.

Today, when the twenty-third convention of the American Institute of Architects meets at Cincinnati, the full force of the original intention of the founders is impressive with a great significance. The Institute and its younger brother, the Western Association, stretch out their hands in fraternal greeting, as they meet to effect the unification of the two great architectural associations of the United States and to consider the carefully prepared report of the Special Committee on Consolidation which has been published in advance, that each member present might bring the result of his deliberations to bear upon the discussion of the best method for the accomplishment of the end in view.

The Institute depends upon the chapters for its very life blood, and could not exist any more than the body without its members, if the chapters were not alive and active. Chapters should, therefore, be strong in membership and earnest in work, perfecting every suggestion for the advancement of the profession, considering and furthering all educational and helpful methods, and bringing to the conventions of the Institute, all matters accomplished and under consideration that may be of interest to the profession at large.

The practicing architect, from the very diversity of his duties and requirements, gains largely by constant intercourse with his confrères. The interchange of ideas and personal experience are of inestimable benefit to him and to his clients; in fact, it should be the self-protective duty of every architect to belong to one of the chapters. I would here suggest that too often young men, fresh from study, in the fire of ambitious enthusiasm, but yet untaught by stern lessons of experience, are eager to establish new leagues, associations, societies and clubs rather than affiliate with established institutions and reap the profit of proved effort.

A little reflection would teach them that the older institutions have formulated those rules and regulations, those principles of art and practice which have elevated the profession in America to its present honorable standing. That through the *persistent* and *persistent* course of the Institute for the rights, for the dignity and for the position of architecture as a fine art, so long ignored in this country, they have, through precedents created for them, been spared some fierce contests.

Let them rather profit by the paternal care of the Institute as their adviser and advocate, stretching forth with the strength and vigor of new inspirations to



reach the ideals of its standards, taking for the underlying principle mutual assistance and coöperation in the more familiar intercourse of the chapters.

The report of the Special Committee on Consolidation is so wisely considered and so admirably expressed that it leaves nothing for me to say beyond words of commendation, and to impress upon you that the earnest efforts of these gentlemen in thus providing for the merging of the two great architectural associations of our country into a common institute is not a funeral dirge to "ring out the old and ring in the new," but a refrain ancient as history and strong as truth, "Union is force."

The report of the Board of Trustees was then read by the secretary, as follows:

TWENTY-THIRD ANNUAL REPORT OF THE BOARD OF TRUSTEES, AMERICAN INSTITUTE OF ARCHITECTS.

To the American Institute of Architects:

Since the convention of last year, held in October, in Buffalo, your Board, under the chairmanship of the president, have held fifteen (15) meetings in the Institute quarters, Welles Building, 18 Broadway, New York.

The most important and absorbing work of your Board has been that with reference to consolidation, which has been the subject of much correspondence with the special committee charged with the details of the matter, and has exclusively occupied the attention of a number of meetings—one of them, that of September 19, being held jointly with the directors of the Western Association of Architects.

The results of these deliberations have already come before you, first early in the year, in the circular embodying a proposed constitution and by-laws for the new organization; then in the letter-ballot, giving the almost unanimous vote in favor of unification, and now in this joint meeting of the two old organizations, and the programme or order of business before you.

Your Board, in its annual report two years ago, gave you the information that a responsible and active society of architects in Western New York, then of goodly numbers, and which has since increased to over fifty members, and seems to be—not without good grounds—hopeful of carrying through the legislature of its state a most important measure,\* and, as probably most well-trained architects think, a most desirable one for the good of the profession and its art, your Board stated that this association had made overtures to it for affiliation with the Institute, in a body, as one of its chapters, provided the Board would commit itself beforehand to give its influence and labors toward carrying out this measure; but that your Board had not found it right to consider any proposition implying the least jeopardy to its paramount obligation, as trustees of the interests of the profession, to keep its judgment untrammelled by pledges.

Last August another association of, to quote, "about a dozen of the best men" in the place, and now numbering twenty, also wrote to your secretary, with a view to coalescence with the Institute as one of its chapters. In this case no conditions were imposed, except the implied one that the association should be admitted bodily. As, however, the last convention showed it was not the desire of the Institute to make the condition of admittance as a body free to any of the architectural fraternities except the Western Association of Architects, your Board could only encourage those of the fraternity in question who were not already members of the Institute to send their credentials and applications as individuals.

Both of the brotherhoods above mentioned have since affiliated with the Western Association of Architects.

Correspondence of a similar nature has been had with various parties in different sections of the Union, one location being in southern California. But, although in answer to a letter from the secretary of the Western Association of Architects, your Board expressed its opinion that either the Western Association or the Institute might, with perfect propriety, take in new members during the processes toward consolidation, which have so largely employed each organization during the last two years, your Board, as stated in its last report, thought it on the whole better for its own part not to seek new candidates, but mainly to deal with its old applications, and during the closing year has elected but nine (9) fellows, namely, Messrs. J. H. Pierce, of Elmira, N. Y.; E. M. Buell and G. W. Baxter, Jr., of Syracuse, N. Y.; G. F. Shepley, C. H. Rutan, C. M. Coolidge W. C. Richardson, each of Boston, all by first election; and Messrs. W. M. Poin-dexter, of Washington, and O. Dockstader, of Elmira, N. Y., formerly associates, while to the latter grade there have been added three new names, those of Messrs. Edward Sidel, of Birmingham, Ala.; Amos J. Boyden, of Philadelphia, and Albert L. West, of Richmond, Va.

To the corresponding membership of the Institute has been added the first individual outside of the Caucasian race, that has appeared in the list of any grade of the Institute, namely, Mr. Kingo Tatsuno, a graduate of the Imperial Institute of Japan and architect of the proposed Bank of Japan, to whom your secretary furnished letters of introduction during his late visit to this country, on behalf of his government, for the purpose of studying the construction and methods of our banks. Your secretary has also given letters of introduction to another Japanese gentleman, introduced by Mr. Tatsuno, namely, Mr. S. Sadachi, of the Ministry of Communications of Japan, and on a visit here for the purpose of investigating the construction and methods of our postoffices.

Thus the profession and the Institute have contributed a link toward that mutually strengthening and sustaining chain of brotherhood, with which modern civilization, with its arts and sciences, binds together all the nations of the earth and all the children of the one common Father.

Your Board, as usual, has been called in several instances to consider and adjudicate upon the rights of the different members of the Institute who have been party to controversies relating to the designing or execution of contemplated buildings, the most important being that between the United States government and the originally appointed firm of architects of the Congressional Library Building. Another case related to the accepted preliminary designs of a large church in Buffalo; another, to a monument in Cleveland, and another to the working drawings of a house in Omaha, Nebraska. Appeals have been made by several other members for adjudication as to alleged inter-professional grievances, and on which your Board has not yet had opportunity to take final action.

Professor Allen C. Conover, of the chair of Civil Engineering in the University of Wisconsin, having informed your secretary that he was engaged in making tests, for the use of his students, of the various brands of American cements, and having asked for information on various points, your Board referred his letter to Mr. Adolf Cluss, of the Washington Chapter, and Fellow of the Institute, whose valuable paper was adopted as a memorial by that chapter, on the establishment of a central station for building materials in the United States. You will remember Mr. Cluss made an exhaustive reply, embracing ample information of great service to Professor Conover, who cordially acknowledged his obligations therefor. Your Board recommend the memorial just mentioned to the consideration, and its objects to the promotion of the reorganized Institute.

Near the end of last year, the American Institute of Electrical Engineers, through their secretary, Mr. George M. Phelps, communicated with your Board on the subject of the coöperation of the Institute, with that, and perhaps other technical bodies, for the purpose of joint occupation of permanent quarters. Your Board appointed Mr. Littell a committee of one to confer with the society; but, for obvious reasons, the matter was not encouraged till further progress should be made in the matter of consolidation.

An old member of the Institute, Mr. R. M. Upjohn, having proposed the following amendment to the schedule of charges of the Institute, namely, "When the drawings and specifications are ready for contract, the architect is entitled to three and one-half per cent."

Before closing its labors under the present by-laws, your Board desires to call your attention at once—instead of waiting for results, as has been its custom under less exceptional circumstances—to a correspondence which may possibly prove the forerunner of the available citation of important authority in favor of the profession.

Respectfully submitted for the Board of Trustees, by  
November 13, 1889. A. J. BLOOR, Secretary A. I. A.

The President: In accordance with the provision of the programme, this report will be handed over to the board of the incoming convention.

The call for chapter reports being made, on motion, it was resolved unanimously that all reports be referred to the incoming convention.

Alfred Stone, of Providence, R. I.: I suppose that as the Institute is a corporate body it may be right to make a motion to this effect, that the members here assembled now constitute the American Institute of Architects and proceed to the consideration of the constitution, so as to have the matter formally brought up in that way.

C. A. Cummings, of Boston: This is a meeting of the American Institute of Architects, is it not?

The President: Yes, sir.

Mr. Cummings: It seems to me that the consideration of the constitution and by-laws which is to govern the consolidated body ought to be participated in by the members of the consolidated body and not merely by the members of one branch of the consolidated body.

The President: Precisely so. That is a question that has been considered. It is a question whether we would not go out of existence as the American Institute of Architects unless we proceeded upon that line. Mr. Stone's proposition is to that effect, that the Western Association be merged right in without the stoppage of this association.

W. W. Clay, of Chicago, here offered the following resolution, which was unanimously adopted:

*Resolved*, That the members of the Western Association, in good standing, are hereby considered members of the American Institute of Architects.

Mr. Stone here offered a resolution not in writing, providing for the appointment of a committee on resolutions, to consist of four members. The motion was not considered, owing to the entrance at this time of Hon. John B. Mosby, mayor of Cincinnati, who was introduced.

The President: Gentlemen, I have the honor of presenting Mr. Mosby, his honor, the mayor of the city of Buffalo. [Laughter.]

After laughingly accepting the apology of the president, the mayor welcomed the convention in the following address:

It is always pleasant to welcome strangers to Cincinnati, but on this occasion it gives me pleasure as the executive officer of this city, to extend to the gentlemen of this organization and their ladies a most cordial and hearty welcome. To the student in your profession it must be gratifying, indeed, to find that in this country the most diversified opinions exist, so that the improvements are continually changing from one style of architecture to another, thereby giving full scope to the inventive genius of American architects. The modern American home of today embraces all the conveniences and comforts on the inside with the corresponding architectural elegance of exterior that will compare favorably with any of the cities of Europe. We are giving more attention of late to public buildings, and the improvement made in the last quarter of a century is very gratifying, and at the same time justifies me in saying that the architects of America have kept abreast of the time, and to congratulate ourselves that in this one branch, at least, we are second to none in the world.

Again, bidding you a most cordial welcome and hoping that your deliberations will be beneficial to you all, and that when you return to your homes that you will recall your visit here only by pleasant recollections and the pleasure you experienced while among us. Thanking you for your kind indulgence, I again welcome you to Cincinnati.

Mr. Stone's resolution was then read by the secretary and unanimously adopted, as follows:

*Resolved*, That all reports of chapters and special committees and resolutions be referred to a committee to report at this convention.

The chair appointed on this committee Messrs. J. G. Cutler, Rochester; W. W. Clay, Chicago; E. H. Kendall, New York, and L. T. Scofield, Cleveland.

Mr. Carlin: I would move a reconsideration of the motion of Mr. Clay that the members of the Western Association be passed into the American Institute of Architects, for this reason. It was not the understanding, in formulating the constitution and by-laws for the merging of the two associations, that either association should be taken into the other as a body, but that both associations should meet and form a new body from the members of both, and it does not seem to meet the approbation of the members of the Western Association that they be bodily thrown into the American Institute of Architects as they now exist. I would therefore move a reconsideration of the resolution.

After putting the motion, the president said: I would like to state before the discussion takes place that it occurred to several of us that unless we merged both bodies into the Institute—if the Institute dissolves—we will lose our charter. There is a legal point there as to whether the Institute should continue right on.

Mr. Root: That question was raised in the committee. It was not even considered that the American Institute should surrender its charter, for the reason you suggest. The only point contained in the suggestion of Mr. Carlin is that the Western Association having had its innings and adjourned, the American Institute should have its meeting and adjourn and a joint convention of the associations be called by its chairman. It is a matter of form in which there seems to be some sentiment as representing the quality of the union and maintaining the individuality of each association.

The President: Your suggestion is that we introduce a resolution to adjourn before this other motion is determined, as a matter of form?

Mr. Root: Yes, sir, and a joint convention be formed.

Mr. Briggs: The first idea is that this motion be rescinded, and then adjourn.

Mr. Clay: The question is, is that vote to be rescinded by members of the American Institute only?

Mr. Root: It would be necessary that the members only who voted upon its passage vote to rescind. It would be members of the American Institute now existing.

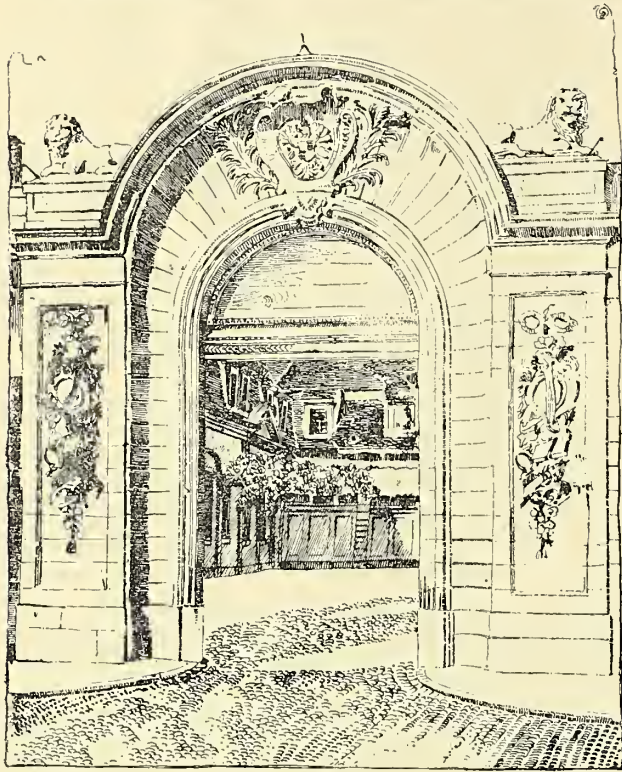
The President: All those in favor of the rescinding of the resolution say aye. Carried.

On motion, the American Institute of Architects then adjourned.

\*For text of this measure see Vol. XIV, No. 5, page 52.



CONVENTION FOR THE CONSOLIDATION OF THE  
AMERICAN INSTITUTE OF ARCHITECTS AND THE  
WESTERN ASSOCIATION OF ARCHITECTS.\*



ENTRANCE GATE STRASBURG

GALLERIE del.

The members of both bodies being then together, Mr. Root moved that the convention be formed and organized at once, composed of the two bodies, the Western Association of Architects and the American Institute of Architects, and that Mr. Hunt be appointed as temporary chairman.

Mr. Chapman: It seems to me that acting as a corporation of both societies, what will the effect be? Are we prepared to have that—to experience that effect? Both societies, I believe, have been incorporated by state laws. In regard to the question of incorporation as the American Institute, I cannot say. I would like some information on that subject. How will it affect our act of incorporation.

The President: That is a very delicate point. I think there is just that possibility of legally losing our charter. I think it is a very important point for our consideration.

Mr. Root: If we come together as a joint convention, can we not then determine whether we can act as the American Institute of Architects and whether the name shall be the American Institute of Architects.

Mr. Littell: This convention of the American Institute of Architects has met for twenty-three or twenty-four years and has adjourned without losing its charter. Why can't it adjourn now without losing its charter?

Mr. Hunt: They have adjourned. Now there is another motion before the house, which is that we shall assemble with the two associations together, and that the chair shall be held by myself as temporary chairman. Now, then, it seems to me you are starting a new institute. There is a legal quibble in that.

Mr. Root: The idea is this, that these gentlemen are now in an unorganized condition and should be organized as a convention, and in this convention it is to be determined what the body is to be called and under what charter it is to work. We all understand that we organized as the American Institute of Architects to proceed under the charter of the American Institute of Architects, but before we do that, we must get ourselves organized into some sort of coherent body.

Mr. Hunt: That is what has been done. This is to be, as I understand it, the American Institute of Architects, and must continue that way in order to hold our charter. Now, what has been done is to admit all those present into this body and it strikes me it is the only possible way to do it in order to avoid some possible legal difficulty. There may be nothing in it, but it strikes me that starting off that way we organize immediately a new body unless we merge one association into the other; it is a new body and we have no charter.

Mr. Patton: It seems to me that any further motion to consolidate is unnecessary. Why? Because the whole ground has been gone over completely. Each society, by a vote of two-thirds of its members, which is sufficient to alter its constitution, if necessary, has voted to consolidate. We have in both societies formally voted and

adopted this constitution. We do not meet here as an organized convention. We meet here as a consolidated society. This constitution has been voted upon by the members of the American Institute of Architects and the Western Association of Architects, and we meet under this constitution. We are to be governed by its rules. The name is already adopted. We can change nothing. We can amend nothing except under the rules of this constitution. We are not organized at all. The American Institute of Architects does not need to vote now to take in the Western Association of Architects, because by a letter ballot it has already voted to consolidate with the Western Association of Architects. Therefore the original American Institute of Architects—that is, the American Institute of Architects with its list of membership hitherto—having adjourned, as soon as the meeting is called together as a consolidated association, what are we? We are the American Institute of Architects, with an enlarged membership. What is that enlarged membership? I believe this constitution provides for it in its by-laws, Article XII, Section 1, "Upon consolidation." When does consolidation take place? The last clause states that (Article XIV) "this constitution and these by-laws, and the consolidation of the American Institute of Architects and the Western Association of Architects into the reorganized American Institute of Architects therein provided for, shall not take effect until the meeting of the two organizations in joint convention." When the two organizations meet in joint convention, and it is declared that it is a joint convention, then we are consolidated, and we are the American Institute of Architects, and no other action is necessary. Who constitute the membership of this American Institute of Architects? A few moments ago it consisted of the names that Mr. Bloor had on the roll, and now it consists as follows, according to Article XII, Section 1: "Upon consolidation the fellows and associates of the American Institute of Architects and the fellows of the Western Association of Architects shall become fellows of the reorganized American Institute of Architects, upon their membership being certified to by the Board of Trustees of the one and the Board of Directors of the other, respectively, attested by the signature of the president and secretary of each organization." It becomes necessary, then, that we shall have two attested lists of members, and that is the only point that remains to be done now. After those attested lists are made out they show who are entitled to be members. It says further, "All property belonging to the American Institute of Architects and the Western Association of Architects shall, upon consolidation, become the property of the reorganized body." Now, it was expressly provided for in the report of the Committee on Consolidation, and adopted, that this constitution should govern this convention. It has been voted by letter ballot, and we are powerless to alter or amend this constitution except as it is provided here; and you will find it provided in this constitution that the convention cannot alter or amend the constitution. They can recommend amendments, but it requires a letter ballot to pass them. It is beyond the power of this convention to amend this constitution.

Mr. Root: That is the idea that was to be covered, that we now assemble as a convention of both bodies under that constitution—that we now assemble under this constitution, with Mr. Hunt as temporary chairman.

Mr. Kendall: Would it not be well to take middle ground and simply take the ground that the joint convention be now called to order and proceed to business.

On motion, it was resolved that the joint convention be now called to order and proceed with its business.

The Chair: Unless otherwise desired, we will take up the articles of this proposed constitution article by article. The secretary will please read Article I.

A Member: Mr. President, if I understand this meeting now, there is no chairman.

Mr. Root: I move that Mr. Hunt be elected chairman of this meeting. This motion being seconded, was put by Mr. Root and carried.

On nomination of Mr. Root, Mr. Patton was elected temporary secretary.

The Committee on Entertainment then announced that the courtesies of the Chamber of Commerce had been extended to the convention, also of the Art Museum in Eden Park, the Young Men's Mercantile Library, on Walnut street, between Fourth and Fifth. A communication was read from the Builders' Exchange, as follows:

George W. Raff, Esq.:

CINCINNATI, Ohio, November 13, 1889.  
DEAR SIR,—At a meeting of the Exchange held this date, the following resolution was passed by a unanimous vote:

"Resolved, That the freedom of the Builders' Exchange of Cincinnati be extended to the visiting members of American and Western Association of Architects, also to draftsmen in attendance to the coming convention and exhibition."

J. B. RIDGWAY, Secretary.

LAWRENCE GRACE, President.

On motion, it was resolved that when the convention adjourns it adjourn to meet the same evening and place at eight o'clock.

After some discussion as to the meeting of the Boards of Directors and Trustees of the Western Association and American Institute, the meeting adjourned.

#### FIRST DAY—EVENING SESSION

This session was not held in the Burnet House pursuant to adjournment, as the Chamber of Commerce kindly prepared for the use of the convention a far more commodious and comfortable room where this and the succeeding sessions of the convention were held.

Mr. Hunt, after calling the convention to order, said: After the meeting this morning I was not altogether clear in my own mind that we had taken the right action about forming this joint convention in these different resolutions that we passed. One was that all members

\*For text of the new constitution and by-laws see INLAND ARCHITECT, Volume XIII, No. 1, page 10.



of the Western Association be admitted into the Institute of Architects. That resolution was rescinded, and there was a joint convention called, of which I was appointed the temporary chairman. I expressed myself at that time as having my doubts as to the legality of our proceedings, and I have since found that all our discussion and resolutions at that time was a great waste of time. After the adjournment this morning I called upon one of the most eminent jurists in this country, the Hon. Jacob D. Cox, formerly Secretary of the Interior. I went there with Mr. Stone and Mr. Scoville. We had a conversation with him, of twenty minutes or so, and he told us that the view that I put before him was the correct one, and that we could only act in continuing the American Institute of Architects right along, with its officers and branches, until new officers were elected, otherwise we would violate our charter, and would be completely disorganized. The only exception to this rule in regard to corporations is the case of railroad corporations where they run through different states, and the law gives them certain privileges. I asked him if he would give his opinion in writing. He said he would. I told him we had two treasuries chock full and overflowing, and he said he would be very glad to give his opinion *pro bono publico*. It is as follows:

R. M. Hunt, President American Institute Architects:

DEAR SIR,—In accordance with the request of your committee I submit the following as my opinion of the principles which must control the legal union of the American Institute with the Western Association of Architects.

1. Every corporation is the creature of state law and has its domicile in the state which incorporates it.
2. In the absence of special legislation authorizing it, the two associations can only unite by one being merged in the other, or by forming an entirely new corporation or society.
3. If the Western Association is merged in the American Institute, the charter, by-laws and organization of the latter should be carefully preserved until amended in accordance with its own rules and regulations. The same would be true, vice versa if the American Institute were merged in the Western Association.
4. If an entirely new corporation is formed here and now, it can only be done under the laws of Ohio and the new corporation would be an Ohio corporation. In this case both the old corporations should be dissolved and their old charters would become defunct.
5. It is my opinion, therefore, that if the prestige of age, etc., as well as the corporate rights, etc., of the American Institute are to be saved, it must be done by keeping its organization continuous, by receiving the members of the Western Association into it, and amending its constitution and by-laws in accordance with the agreed scheme.

Very respectfully yours, J. D. Cox.

It would seem that in spite of our various opinions on this subject, and each of us has one, I suppose, all our work has been done for nothing.

On motion of Mr. Crapsey, Mr. Nickerson was appointed assistant secretary.

Mr. Carlin: Who is the secretary?

The Chairman: Mr. Bloor is the secretary, as I am the president. Article V of this opinion says, "It is my opinion, therefore, that if the prestige of age, etc., as well as the corporate rights, etc., of the American Institute are to be saved, it must be done by keeping its organization continuous."

Mr. Randolph, of Chicago: It seems to me that the best thing to do is to adjourn the temporary meeting, then for you to call a meeting of the American Institute. I move that we adjourn *sine die*. The motion carried.

#### AMERICAN INSTITUTE OF ARCHITECTS.

Mr. Hunt: I will now call the Institute of American Architects to order and the first thing will be to rescind this resolution.

Mr. Hellmers: Under the opinion which you now hold in your hand, you understand that the work done by the association individually — this joint ballot that we have had by letter adopting this constitution — is that all wiped out and illegal?

The President: No.

Mr. Illsley: If one stands, why does not the other stand?

The President: What we have done is perfectly legal and correct up to the present time. One institution, the one into which we go, whatever it may be, has, according to the opinion, got to be continuous. One body has got to be continuous, and the other merges into it. As I understand the case the Institute and the Western Association have, by ballot, agreed to meet in joint convention and merge into the association known as the American Institute of Architects. The Association and the Institute are present, but not in joint convention. In other words, they have carried out what their constitution and by-laws have required them to do, and the stand I take is this, that the fact of our being here in joint convention makes us the Institute of Architects without any further resolutions and without any further ballot, and that the officers of the American Institute are the officers of this meeting at present, and that it is not necessary for anybody to make a motion. All that is necessary for anybody is to make a move in the Institute that the members of the Western Association be taken in.

Mr. Stone: I think the statement is entirely correct, but I would suggest that this be done; that if the lists be prepared which have been passed upon and when it is declared that the persons upon the lists made up are assembled as the American Institute of Architects, then we are all members of the Institute, and we proceed immediately to our business and that is the thing that gives us our status.

The President: I should say that was correct.

Mr. Clay: I move that the constitution and by-laws, as amended, and as has already been delivered or sent to each member of the Institute, be adopted as a substitute for the present constitution and by-laws.

The motion was unanimously carried.

Mr. Patton, secretary of the Western Association: I wish to offer, in accordance with Article XII of the new by-laws, a certified list of the fellows of the Western Association of Architects, who are now entitled to membership in the American Institute of Architects.

Mr. Bloor, secretary of the American Institute: I offer this as the list of the old American Institute of Architects.

The President: Will someone present move that the American Institute of Architects now adjourn?

Mr. Stone: I move that the American Institute of Architects adjourn for five minutes. Carried.

#### WESTERN ASSOCIATION OF ARCHITECTS.

Mr. Carlin: Gentlemen, this is a meeting of the Western Association of Architects. (Laughter.) Will some member of the Western Association make a motion that this association now adjourn *sine die*?

Mr. Illsley: Mr. President, I beg leave to offer a motion that I think will cover the whole case more directly:

*Resolved*, That the secretary of the Western Association be instructed to insert in his minutes, at the end of the motion to adjourn in the morning's proceedings, the words "*sine die*," so that the minutes will stand that this association did then adjourn *sine die*.

The resolution was carried.

Mr. Patton: I wish to inquire whether it is necessary to take any action about giving up the charter, or whether that will simply lapse by non-use?

Mr. Illsley: Mr. Chairman, I desire to ask for information, first, has everything necessary been done in the way of transferring the property of the Western Association to the new board of the consolidated association?

The President: I think it has. There was a resolution introduced this morning to cover that point. But, as I understand it, some legal steps must be taken to surrender or merge our charter.

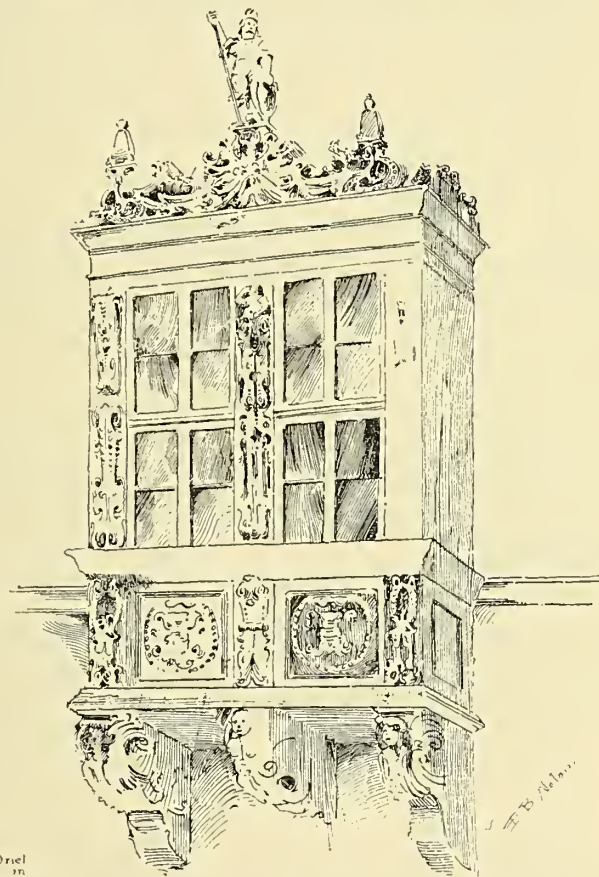
After some discussion, Mr. Illsley moved that the Board of Directors of the Western Association be directed to take the necessary legal steps to surrender their charter, or merge it with that of the Institute, and that this resolution be inserted in the minutes before the adjournment *sine die*.

The motion was carried.

On motion, the Western Association of Architects adjourned *sine die*.

Mr. Root: I would like to congratulate the Western Association, now defunct, upon the extreme deadness of the corpse twice killed. [Laughter.]

#### CONVENTION FOR CONSOLIDATION RESUMED.



President Hunt: The American Institute of Architects is now again in session and wish to proceed with the business of the convention.

Mr. Stone: Mr. Chairman, before proceeding with the further business of the meeting I would like to introduce a resolution of thanks to the Architectural Club of Cincinnati, who have decorated Pike's Opera House so beautifully and have been so successful in obtaining the choicest collection of sketches and architectural drawings that probably has ever been got together in this country, and it seems to me eminently proper that this convention should take some notice of it, because it has been done, as I understand, by the young men in the architects' offices in this city. They have spent their own money and their own time in doing this work and we certainly all



appreciate how prettily it has been done, and I am in favor of showing that we appreciate it. I therefore offer this resolution, with your permission :

*Resolved*, That the thanks of this convention be extended to the Cincinnati Architectural Sketch Club for their courteous invitation to attend the exhibition at Pike's Opera House during the session of this convention, and that the members of the club be and they hereby are cordially invited to attend the meetings of this convention.

The resolution was adopted unanimously.

Mr. Illsley : In behalf of the architects who participated in the ride this afternoon, I beg leave to move that we offer a vote of thanks to the architects of the Association of Ohio Architects, and also to those citizens who so hospitably opened their doors to us this inclement day.

The motion was unanimously carried.

The President : We will proceed to consider these articles one by one ; or is the whole business accepted now ?

Mr. Briggs : I understand there is some misunderstanding in regard to the proposed constitution and by-laws. I understand that this has been accepted as it is in its present form, and that we voted upon it that way. A great many members don't seem to understand that. They think they came here to vote upon that. I understand we can discuss amendments to be voted at a future day, but no amendments can be made to the constitution and by-laws of the consolidation as it now stands.

Mr. Littell : Mr. President, Article VII of the new by-laws states that the annual dues of fellows shall be fixed by a majority of the members present at the annual convention. It seems to me that we ought to do that now, as this is our first annual convention. I, therefore, move that a committee of seven be appointed by the chair to consider and report tomorrow to the convention upon the proper amount of the annual dues of fellows.

The resolution was adopted.

Mr. Stone : I move to add, as Section 8 of Article I of the by-laws which we have in hand tonight (to be brought up for consideration at the next annual meeting, which, as I understand, will be legal), the following :

*Resolved*, That any person who has been a member of the American Institute of Architects, in good standing, for ten years, upon attaining the age of seventy shall be exempt from the payment of annual dues, and shall retain all the privileges of the Institute, including that of voting.

The resolution was unanimously adopted.

The President : The chair would announce as members of the committee to take into consideration the matter of annual dues of members of the Institute, the following, making eight : G. W. Baxter, Jr., Syracuse ; S. A. Treat, Chicago ; George W. Rapp, Cincinnati ; Sydney Smith, Omaha ; C. A. Cummings, Boston ; W. M. Poindexter, Washington ; R. W. Gibson, New York ; Charles K. Ramsey, St. Louis.

Mr. Illsley : I offer a motion that the chair immediately appoint two committees, of seven members each, to nominate officers for the ensuing year. The motion passed.

The president announced the members of the two nominating committees, as follows :

On the first, C. E. Illsley, St. Louis, Mo. ; C. A. Cummings, Boston, Mass. ; W. B. Briggs, Bridgeport, Conn. ; L. S. Buffington, Minneapolis, Minn. ; E. A. Kent, Buffalo, N. Y. ; Sydney Smith, Omaha, Neb. ; R. W. Gibson, New York.

On the second, George B. Ferry, Milwaukee, Wis. ; W. M. Poindexter, Washington, D. C. ; N. S. Patton, Chicago, Ill. ; A. F. Rosenheim, St. Louis, Mo. ; A. J. Boyden, Philadelphia, Pa. ; J. H. Pierce, Elmira, N. Y. ; J. W. Yost, Columbus, Ohio.

On motion of Mr. Yost, these committees were instructed to report the next morning.

Mr. Root then moved that a committee of three be appointed by the chair to suggest at the next session of this convention the place at which the next convention of the association would be held. This motion being carried the chair appointed Messrs. S. M. Randolph, Chicago ; E. H. Kendall, New York, and Glenn Brown, Washington City.

The President : Gentlemen, I would like to read a telegram that has just been received :

TORONTO, Ontario, November 20, 1889.

*Secretary of American Institute of Architects, Burnet House, Cincinnati, Ohio :*  
The first annual convention of the Ontario Association of Architects now assembled sends greetings to the joint convention of the American Institute of Architects and the Western Association of Architects, and the hope that the fusion of the societies will result in a great advancement of the interests of the profession on this continent.  
S. HAMILTON TOWNSEND, Secretary.

Mr. Stone : I move that the secretary be directed to send a proper response to the Ontario Association.

This motion being carried, Secretary Bloor sent the following response :

CINCINNATI, November 20, 1889.

*S. Hamilton Townsend, Secretary Ontario Association of Architects, Toronto, Ontario :*

Your telegram received with enthusiasm a few minutes ago during the evening session of the enlarged and reorganized American Institute of Architects, who reciprocate good wishes and return cordial greetings.

A. J. BLOOR, Secretary A. I. A.

On motion, the convention adjourned to meet November 21, at 10 A. M., in the same room.

## SECOND DAY—MORNING SESSION.

The convention reassembled pursuant to adjournment, President Hunt in the chair.

The President : Gentlemen, the first thing in order this morning is the reports of the several committees, and I would suggest that they report in the following order : The reports of the two nominating committees, then of the committee of eight to report on annual

dues, then of the committee of three as to the place of the next meeting. I suggest this for this reason, that the names on the list reported by the two nominating committees could be written on these two blackboards, so that all the members may see them and be able to discuss them, and then to take up the other two reports and discuss them before we commence to act upon the report of the nominating committees, giving ample time for the members to discuss the nominations.

Mr. Ferry : The report of one of the nominating committee is now in the hands of the printer, and we will have ballots sufficient so each can peruse them at his leisure ; but they are not yet ready, and will not be for awhile. We have found in the Western Association that it was preferable to have a printed ballot, for when we put all the names on the blackboard, I think you gentlemen do not realize that there are twenty-nine names. If we get the twenty-nine names on the two blackboards there are fifty-eight names, and you will have some trouble in discriminating with them, more so than you would if you had the ballots in your hands to do so at your leisure, as you saw fit.

The President : Then, unless it is otherwise desired, let us proceed to the report of the Committee on Dues.

The Committee on Dues having asked the indulgence of the convention, Mr. Illsley moved that the secretary's report of the consolidation proceedings of the day before be worded as follows :

*Resolved*, That the Western Association adjourned *sine die* after unanimously instructing their directory to take all necessary steps to relinquish the charter of the Western Association, and to transfer all its properties to the American Institute. The certified lists of members of the two associations were now presented and the persons named therein were recognized as members of the American Institute, which unanimously amended their previous constitution and by-laws, which had been duly submitted thirty days in advance of this convention.

I think we do not want all the proceedings of yesterday to be recorded in our minutes. I offer that as an instruction to the secretary.

It was so ordered.

The President : Is the Committee on Dues now ready to make its report ?

Mr. Baxter : Mr. President, the report of the Committee on Dues is that, after having two meetings, we have decided on \$10 annual dues.

The President : Gentlemen, you have heard the report. Anything to say on this report ? The committee, you have heard, reports that the annual dues for fellows shall be \$10. Does anyone wish to say anything on this subject ?

Mr. Ferry : I would like to inquire what the probable income of the Institute will be on that sum, if the secretary can tell.

The President : Between \$4,000 and \$5,000, as we rated up the members yesterday. We were very strict in both the associations. Any man that was in arrears in dues and penalties, even for \$2 only — \$2 was the lowest — was rated from the list. It is without doubt, in our opinion, that a great many of those that were stricken from the list yesterday — we intend to notify them of our action — will pay the dues and come in. So I think we can count on dues that will be paid in that way, to bring the present 438 members up to 500, and that would make an income of \$5,000.

A discussion occupying almost the entire session here ensued. Messrs. Gibson, Carlin, Cummings, Illsley, Wallingford, Patton, Avery, Cutler, Hellmers, Yost and McNamara speaking at length in favor of the committee's report, Messrs. Stone, Hannaford and Stead in favor of \$15 dues and O'Rourke in favor of \$25 dues. The vote then being upon the adoption of the recommendation of the committee that the annual dues be \$10, the same was carried.

Mr. Carlin : There is one matter which I would like to bring before this convention at this time, and that is, that in electing the members of the Western New York Association as members of the Western Association last fall there was a member elected who was not strictly entitled to membership. He had been a draftsman and then became an architect. He has since resigned his profession, and is therefore not entitled to membership. His name is on the list which has been certified by our president and secretary as having paid the dues to the Western Association for the last year. I would move that the dues be remitted to him, \$5. The name is James A. Randolph, of St. Louis.

It was so ordered.

Mr. Briggs : Mr. President, there is a slight complication between the Western Association and the Institute in regard to membership of chapters and membership of individuals, that is, many that are members of the Institute and have been members of the Western Association are members of no chapter, and there are many members of chapters who are not members of the Institute. In order to overcome that, I offer the following resolution :

*Resolved*, That, inasmuch as a complication exists between the relations of chapters and individuals as to their membership in the American Institute, it is moved that the following committee be appointed to report at the next meeting upon some feasible system by which the complication may be removed : C. A. Cummings, John W. Root, J. G. Cutler, James W. McLaughlin, E. T. Littell, L. T. Scofield and C. E. Illsley.

The resolution was adopted.

The President : The next thing in order while they are distributing these lists of candidates, is the report of the committee on place of next meeting. Is that committee ready to report ?

Mr. Randolph : Mr. Chairman, your committee met last evening and received a verbal invitation from the city of Washington, or from the chapter located at that place, to meet with them next year, and decided last night so to report. This morning your committee have received a communication extending an invitation from Denver, Colorado, which is certainly proper to put before the convention, and



while your committee do not see fit to change their recommendation, we would ask you to receive this invitation also.

The President: Will the secretary please read the communication?

MAYOR'S OFFICE, DENVER, COLORADO, November 9, 1889.

To the Members of the Convention of the American Institute and Western Association of Architects, Cincinnati, Ohio:

GENTLEMEN,—In behalf of the city of Denver I desire to extend to you, the members of the Institute, a cordial invitation to hold their next annual convention at the city of Denver.

The desirability of Denver as a place of meeting, as well as its marvelous growth, would make your visit pleasant, profitable and progressive. Denver stands third on the list of cities in the amount of building done in the past twelve months, and hence her people have a great desire to have the representatives of the men whose skill and ingenuity has designed and built its many magnificent buildings, with them in person.

Our delegates will elaborate further upon our warm hospitality, and many points of interest, and are authorized to use all legitimate means to induce you to come to the Queen City. Very truly, WOLFE LUNDENER, Mayor.

On motion, the Denver invitation was referred to the secretary for proper acknowledgment.

Mr. Randolph: We report in favor of Washington city.

Mr. Carlin: I move to amend that report by inserting "New York City in place of Washington."

The amendment was lost and the report of the committee adopted.

The President: While they are distributing these lists I would like very much to read a letter that has just been this minute received from Mr. Adler. He has been very active in bringing about the union of these two societies. He expresses his regret for not being present.

CHICAGO, November 20, 1889.

MY DEAR MR. HUNT,—Yesterday I wrote to Mr. Carlin, president of the W. A. A., that I would be unable to attend the convention, losing sight for the moment that my allegiance was due as much to the president of the Institute as to the president of the W. A. A., and I therefore beg that you will excuse me for failing to attend the convention, regarding the preliminaries of which I have manifested such blatant and vociferous activity. My duties here, however, are so urgent and imperative that it is impossible to get away.

I regret nothing more than that I should be unable to assist in convention in transferring to the newly organized, broadened and widened, American Institute of Architects, the president and the secretary of the older organization.

I should like it very much if you and others of your party could make it convenient to return to New York by way of Chicago, remaining here for a day or two. I know that I can make your stay in the highest degree interesting and agreeable, and beg you to accept this invitation. Very sincerely yours,

D. ADLER.

The secretary was instructed to make proper acknowledgment.

Mr. Stone: I would like to offer a resolution in regard to the matter of past dues. The secretary showed me last night a list of the members of the American Institute—of course, I think it may be very likely so in the Western Association—in which there were some names stricken from the list who have been here or who have sent their dues. I think we should not cut off any of the members who are willing to pay up. I therefore offer the following:

*Resolved*, That the Board of Trustees of the American Institute of Architects and the late Board of Directors of the Western Association of Architects be allowed to certify to the membership of all persons who may pay their past dues in each organization on or before February 1, 1890, and all such persons shall be considered as fellows of the American Institute of Architects, when said lists are attested by the signatures of the president and secretary of each organization.

I do this, gentlemen, because I think it will be for the best interest of all concerned, so if there be any clerical errors we can have time to correct them and we will not be forced to cut off any man who is not present, and who has not had time to be heard in this matter.

The motion was carried unanimously.

The President: The next thing in order is the election of officers. What action will you take?

Mr. Illsley: I have the honor to report that the white ballot which is in everyone's hand, I believe, is the report of the first committee.

Mr. Ferry: I report for the second committee that the ballot on yellow paper is submitted as the report by them.

Mr. Carlin: I have a matter to bring before the convention at this time. It has been delegated to me by a gentleman who is absent. I have a letter from Mr. Adler, which I received yesterday morning, which he has requested me to read—this portion of it—to the convention, as follows:

\* \* \* Another cause for regret at my absence from the convention is the hope I entertained of being the one to nominate for the presidency of the newly organized Institute one who, through the past thirty years, has been our leader in the development of the artistic phase of modern American architecture, and who has been the teacher and mentor of more than a score of the best of the younger architects, a man who has been in all his relations to his clients, to the public, and to the profession, truly a cavalier without fear and without reproach, and who, advanced in years, still retains the virility and elasticity of youth in his work and in his intercourse with the world. To forego the privilege of nominating for the presidency of the American Institute of Architects Mr. Richard M. Hunt, is a deprivation that I shall ever regret.

I had also hoped to have enjoyed the privilege of nominating for the secretaryship of the Institute Mr. A. J. Bloor, than whom there is none within the ranks of the Institute or the Western Association who has rendered more valuable and more arduous service to the cause of architectural associations. Mr. Bloor is a man who has devoted his whole life to our service; who has ever been the champion of our profession wherever it has been assailed in print; whose contributions to the public press, in presentation and defense of the interests of our profession, are numerous enough to fill quite a volume, and so interesting and instructive that they should occupy an important place in the literature of our profession. Could these, together with his letters of advice to young architects and his adjudications of disputes and misunderstandings between architects individually, and between architects and clients, be collected and published in book form, and thus preserved to our profession, they would reveal a store of worldly wisdom and shrewdness, controlled by an exalted ideal of the dignity and responsibilities of the status of the architect, and they would form a most admirable manual or text book for the instruction of clients and of the public in general in the relation of architects and client, and in the duties toward each other of architects themselves, as also of the building public and the architectural profession.

Mr. Smith: I move that the nominations now close, and that we proceed to the election of officers.

The President: Before we proceed, I must confess that that letter has taken my breath away.

The president, overcome by his feelings, sat down and covered his face with his handkerchief amid great applause. After the excitement had somewhat subsided, Mr. Carlin addressed the secretary as follows:

Mr. Secretary, I would move you sir, that the election of Mr. Richard M. Hunt as president of the newly organized Institute be made unanimous. [Which was seconded by many voices.] All those in favor of that motion please make it manifest by saying "aye." [A storm of "ayes."] It is entirely unanimous. [Loud and prolonged applause.]

President Hunt: Gentlemen, I thank you most sincerely for this expression of your confidence. I will do all that I can to aid in carrying on the good work of the Institute, the union that has now been consummated, and let us hope that it will be fruitful of good work in the right direction, and that it may be everlasting. And I think I express the feelings of everyone present in saying, "So say we all." [Great applause.]

Mr. Illsley: Mr. President, I move that the chair now appoint four tellers to proceed to take up the ballots.

The President: Unless there be some objection, that will be so carried out. And the chair will appoint as the tellers, C. P. Avery, of Cleveland; Frank W. Angell, of Providence, Louis J. Schaub, of Chicago, and Robert Stead, of Washington.

On motion, the tellers collected the tickets and retired to form their report.

The President: There was a committee appointed to report upon all the reports. Is that committee ready?

Mr. Cutler read the following report:

Your committee on reports presented to the convention, offers the following:

Reports from the chapters at Boston, Washington, San Francisco, Chicago, St. Louis, Rhode Island, Baltimore, Philadelphia, Cincinnati, Indianapolis and New York, have been received and examined by the committee. They seem to indicate a satisfactory condition of interest and activity on the part of members, and do not now call for a special remark except as to the question raised in one of them in regard to what effect the consolidation would have upon the relation of chapters to the Institute. It is recommended to your committee that the secretary call the attention of all secretaries of chapters to the terms of Article X of the by-laws, and advise them that until some action is taken by the Board of Directors defining terminal jurisdiction of chapters, their relation to the Institute is not affected in any way, also that secretaries of state associations be advised in the same way that hereafter these societies will be known as chapters of the Institute.

The committee advises that the report of the committee on the employment of clerks of works be adopted; that the report of the Bloor indemnification committee be accepted, and the committee be continued; that the report of the committee on the adoption of the metric system be filed, and the committee be discharged; that the reports of chapters be referred to the Board of Directors for further consideration.

Among the papers referred is a valuable report of experiments on evaporation of water in traps, which we recommend to be read, should time permit, and in any case that it should be printed in the report of the proceedings.

All of which is respectfully submitted.

JAMES G. CUTLER, Chairman.  
E. H. KENDALL.  
W. W. CLAY.  
LEVI T. SCOTFIELD.

On motion of Mr. Treat, the report was accepted.

J. W. Yost, of Columbus, was called upon, and read a paper on "Professional Conquest" (printed on page 58), after which the secretary read the following:

The Cincinnati Architectural Club desires to present their most sincere thanks for the kind privileges granted them at yesterday's session, and beg leave to assure you that the honor is highly appreciated.

JOHN ZETTLER, Secretary.

On motion, a vote of thanks was extended to Mr. Yost for his admirable paper, and it was directed to be published in the proceedings.

The President: I understand there is also another paper of Mr. James H. McNamara, of St. Louis, on "Domes and Towers." That is in addition to that of Mr. Glenn Brown, of Washington.

Mr. Cutler: I think it has struck most of us that the arrangements with regard to the press are susceptible of considerable improvement. The secretary is overburdened with the duty of keeping the run of the proceedings, and it has occurred to me that a committee should be appointed to take charge of the giving out to the press of such matters as are expedient for publication. I therefore make this motion:

*Resolved*, That a committee, consisting of Messrs. E. H. Kendall, W. W. Carlin and A. J. Bloor, be appointed to give the press such reports and items of business as they deem expedient to publish.

The resolution was adopted.

On motion, the meeting adjourned to 3 o'clock.

## SECOND DAY—AFTERNOON SESSION.

When the convention again came to order the tellers' report was called for, and the ticket elected was as follows:

For President—Richard M. Hunt, New York.

For First Vice-President—W. W. Carlin, Buffalo.

For Second Vice-President—James W. McLaughlin, Cincinnati.

For Secretary—John W. Root, Chicago.

For Treasurer—Samuel A. Treat, Chicago.

## BOARD OF DIRECTORS.

### For Three Years.

Edward H. Kendall, New York.

Charles A. Cummings, Boston.

Dankmar Adler, Chicago.

Henry Van Brunt, Kansas City.

James G. Cutler, Rochester.

C. E. Illsley, St. Louis.

E. T. Littell, New York.

James H. Windrim, Philadelphia.



## For Two Years.

R. S. Peabody, Boston.  
R. W. Gibson, New York.  
W. W. Clay, Chicago.  
Stanford White, New York.

C. A. Coolidge, Boston.  
W. H. Hayes, Minneapolis.  
O. P. Hatfield, New York.  
W. D. Briggs, Bridgeport.

## For One Year.

T. P. Chandler, Philadelphia.  
Adolph Cluss, Washington.  
J. C. Stevens, Portland.  
C. F. Schweinfurth, Cleveland.

Sidney Smith, Omaha.  
G. W. Lloyd, Detroit.  
W. C. Smith, Nashville.  
A. C. Bruce, Atlanta.

Mr. Root was now called upon to take his place as the newly elected secretary of the Institute.

Mr. Carlin: I have a report here that I have just received from Mr. Adler, as chairman of the Committee on Statutory Revision.

The President: In the regular order of business that should be referred to the committee. If there is no objection I should think there would be no harm in reading it now.

On motion, the report was ordered read, as follows:

CHICAGO, November 19, 1889.

To the President and Board of Directors of the Western Association of Architects:

As the undersigned is chairman at once of the Committees on Statutory Revision and on Bill Governing the Office of Supervising Architect of the United States Treasury Department, and as the reports of both committees will to a certain extent cover the same ground, I wish to take the liberty of uniting the two reports into one.

Your Committee on Statutory Revision has done nothing during the past year. The various special committees on the same subject appointed by the individual state associations have worked in their respective state legislatures, but as yet without result.

Your Committee on Bill Governing the Office of Supervising Architect of the United States Treasury Department has done nothing during the past year for the reasons stated at the last convention of this Association.

In a republic, legislative enactments and reforms, other than those incidental to the carrying out of the policies of the great political parties, can be passed through the national, state and municipal legislative bodies only in obedience to strongly and definitely pronounced public sentiment. While it may be said that there are instances when laws and ordinances are framed and passed in the interests of our great moneyed corporations and monopolies in obedience to legitimate pressure exerted by these, the Western Association of Architects, being neither a trust nor a monopoly, but occupying in its relation to the legislative reforms proposed and advocated by it the attitude of a trustee or professional adviser of the public, and expecting from the proposed reforms no other advantage than that arising from the identity of the interests of individuals with those of the community in which they live, and the further indirect advantage of a betterment of standing in public esteem of those who have been instrumental in shaping legislative action for the public good; cannot make use in its efforts to influence national, state and municipal legislatures of the means too often resorted to by the great corporations and other moneyed interests. It must rely entirely upon the support of the intelligent citizens of this country, and it must make its argument first to these and through them to congressmen, state legislators and aldermen. But this argument is far better made by each individual member of the profession than by a committee. The committee can only act after those whom it represents have paved the way. It will be necessary, therefore, that every member of the Western Association of Architects shall constitute himself a member of the committee for the furtherance of the ends of our association. It is necessary that each of them endeavor, in the management of the buildings entrusted to his personal care, and in his regard not merely for the nearer immediate interests of his clients, but also in his care of the broader interests of the public, to make the conduct of each building in his charge an illustration of the assertion which we make, that the individual citizens of the United States are better served by their architects, than is the government of the United States by the office of the supervising architect of the treasury department. Having made this demonstration, it becomes the duty of every member of the Western Association of Architects to proclaim it through the press and by every possible means through which it can be brought to the attention of the public, and through these channels to the individual legislators.

If we are really in earnest in our desire for the proposition of the Western Association of Architects, that there be established by the state and municipal authorities a standard of knowledge and skill for the membership of the architectural profession, then let each member of our body do all in his power to demonstrate his possession of such knowledge, and call the attention of the public through every means in his power to the incidents constantly occurring where life, limb and health of the citizen of this country are jeopardized by the acts of those assuming the functions of architects but devoid of the necessary qualifications. This being done, the public aroused, the work of our committee in securing the necessary legislation will be an easy one, but until the way has been in this manner prepared, the efforts of committees will be futile, and might as well be discontinued.

In this connection it would be as well to state that one of our first duties should be to educate the public into the knowledge that picture-making alone is not architecture, and that there are better methods of determining the ability of architects than the inspection of sketches submitted in competition or on probation.

For the committee, etc.,

D. ADLER, Chairman.

H. O. Avery, of New York, now made the following motion:

Resolved, That the thanks of this convention be and are hereby tendered to our retiring secretary, A. J. Bloor, for his years of unselfish and untiring efforts for the advancement of the profession in the best interests of this American Institute of Architects.

The resolution unanimously carried.

Mr. W. R. Briggs, of Bridgeport, Conn., offered the following, which was unanimously adopted:

Resolved, That the thanks of this convention be extended to our retiring treasurer, O. P. Hatfield, of New York, for his long and faithful services as treasurer of the Institute.

On motion of Mr. Gibson, the Institute Committee on Employment of Clerk of Works, consisting of R. W. Gibson, of New York, D. Adler, of Chicago, and W. G. Preston, of Boston, was continued, and W. R. Forbush, of Cincinnati, and J. G. Cutler, of Rochester, added to it.

Mr. Carlin offered the following resolution:

Resolved, That the Committee on State Associations be continued, with J. F. Alexander, of Lafayette, as chairman, and that it include a member from each state where there is a member of the Institute, and in which there is no state association.

The resolution was adopted.

Mr. Pierce: It seems to me there is one point we ought to consider, and in looking over the constitution and by-laws we have made no provision for filling vacancies that may occur in the board, or for those who do not accept the position, and I offer the following resolution:

Resolved, That the secretary inform within the next three days all members elected to hold office during the ensuing year, at the same time requiring of each

an answer either accepting or rejecting the position. All vacancies occurring in the Board of Directors may be filled at their discretion until the next annual meeting.

Mr. Briggs: I understand that we have elected a board of directors of twenty-four, and they can certainly elect eight out of the twenty-four. I do not think that was necessary at all.

Mr. Carlin: I move you, sir, that the Committee on Code of Professional Ethics, consisting of five members, be appointed by the chair, with Louis H. Sullivan, of Chicago, as chairman.

Mr. Patton: I have no objection to this committee and no objection to Mr. Sullivan, but he had one year and he did nothing. This last year he has had the whole year to himself, and he has done nothing. It seems to me it would be well to have another chairman.

Mr. Carlin: I know that he is very much interested in this subject. I have had considerable correspondence on it within the past few months with him, and he intended to have had a very full and complete report to present to this convention, but his duties in connection with the department, and his being slightly under the weather have prevented that report. If he is continued as chairman we will hear from him next year.

The chairman then put the motion and it was carried.

Mr. Yost: I move that the Committee on Competitions of the Western Association be continued as a committee of the American Institute, the committee to be appointed by the chair.

The motion was carried.

After votes of thanks were bestowed upon several worthy objects, Mr. Glenn Brown then read a paper upon "Evaporation of Water in Traps" (printed on page 57). Appended to this paper was a diagram showing graphically the rate at which the water was lowered by evaporation. A vote of thanks was extended to Mr. Brown, and the paper ordered published in the proceedings.

A paper was then read by J. H. McNamara, of St. Louis, on "Domes and Towers" (printed on page 57). On motion, a vote of thanks was tendered Mr. McNamara, and the paper was ordered printed in the proceedings.

The President: Gentlemen, the chair has been called upon to give the names of the Committee on Code of Professional Ethics, five in number. They are as follows: Louis H. Sullivan as chairman, E. H. Kendall, W. W. Carlin, Henry Van Brunt and R. W. Gibson.

Mr. Illsley: Mr. President, I offer a motion that a committee of five be appointed by the chair, to report to this body at its next annual convention what measures are advisable to equalize, or otherwise lessen, the traveling expenses of members attending the convention. I am not sure that they will find any measures practicable, but I think that it is worth an investigation, and so I ask the appointment of the committee by the chair.

The motion was agreed to, and the chair appointed as such committee Messrs. Illsley, Treat, Yost, Cutler and Buffington.

Mr. Glenn Brown: Mr. President, I have a motion here, from the Washington Chapter, that is in reference to having delegates to the different conventions, instead of having the whole body attending conventions. I move that a committee be appointed to consider the matter and bring it up at the next convention.

An amendment being offered that this matter be referred to the Board of Directors, the amendment was accepted and the question referred to the Board of Directors.

Mr. Briggs: I offer this resolution:

Resolved, That the secretary be requested to send a list of the officers and committees elected and appointed at the annual convention of 1889 to such journals as he thinks proper for publication.

Mr. Brown: I move that he give those to all the technical journals. I notice that the *American Architect* and others do not publish all these things. I don't know whether they do not get it or not. I am a subscriber, and I notice that they do not have it.

Mr. Ramsey: I move that the secretary be requested to give a copy to those journals that are represented at this meeting. I think that the papers that have taken the trouble to come here and take down our proceedings ought to be rewarded for their labor.

The President: All that are in favor of the resolution as read (referring to that of Mr. Briggs) say "Aye." Carried.

Mr. Beaumont offered the following resolution, that a vote of thanks of this convention be tendered to those representatives of the press who have been present at this convention, which was adopted.

On motion of Mr. Briggs, the convention adjourned, subject to the call of the Board of Directors.

## MEETING OF BOARD OF DIRECTORS.

The first meeting of the Board of Directors of the American Institute of Architects was held at Cincinnati, November 21, 1889. The following members were present, President Hunt being in the chair:

W. R. Briggs,	R. W. Gibson,	J. W. McLaughlin,
A. C. Bruce,	R. M. Hunt,	J. W. Root,
W. W. Carlin,	C. E. Illsley,	Sidney Smith,
J. G. Cutler,	E. H. Kendall,	S. A. Treat,
C. A. Cummings,	E. T. Littell,	

The following gentlemen were elected as members of the Executive Committee, of which the president, secretary and treasurer are ex-officio members: E. H. Kendall, of New York, three years; D. Adler, of Chicago, three years; R. W. Gibson, of New York, two years; W. W. Carlin, of Buffalo, one year.

Mr. Cummings reported on behalf of committee on relations between chapters and the association as follows:

The committee have carefully considered that subject, and have found themselves confronted by difficulties so great as to prove insurmountable by any wisdom which the committee can apply to them.

The committee recognize fully the desirability of providing that every fellow of the Institute shall be also a member of some one of the local societies organized as chapters. In no other way can the Institute be so well assured of the



fitness of a candidate for membership as by his being certified to be a member in good standing of one of its chapters. And the fact of all the fellows of the Institute being at the same time members of the chapters tends to confirm that solidarity of the chapters with the Institute, which is so eminently to be desired.

But, on the other hand, there are doubtless many cases in which an architect residing in a town where no local chapter exists, where the nearest chapter may be located at a distance of hundreds of miles, may desire to become a member of the Institute. He may be in every respect qualified to become a useful member, and to receive both pleasure and profit from his association with the Institute. To refuse him admission, except on condition of his joining a chapter, perhaps in another state, with which he has no natural affiliations, with the members of which he has no acquaintance seems a measure hardly less than tyrannical.

The committee confess themselves unable to see any method by which the difficulty can be overcome, and they, therefore, ask respectfully to be excused from further consideration of the subject, and to recommend it to the wisdom and judgment of the board of directors.

For the committee. CHARLES A. CUMMINGS, Chairman.  
Cincinnati, November 21, 1889.

The report was referred to the Executive Committee.

Mr. Littell offered the following resolution :

Resolved, That the full powers of the Board of Directors, not expressly reserved in Article VII, Section 2, of the by-laws, be vested in the Executive Committee, subject to the obligation to report to the Board, from time to time, when called upon to do so.

The resolution was adopted.

Mr. Gibson moved the following :

Resolved, That the Executive Committee shall hold quarterly meetings and other meetings at the call of the president, when the secretary shall report to him a necessity for the same, or when three members of the committee shall request him to call such meeting for special business.

The resolution was adopted.

Mr. Cutler offered the following resolution :

Resolved, That in the event of inability to attend a meeting of the Executive Committee, the member so prevented from being present shall notify the secretary, who shall therefore, if deemed expedient, notify a director, who, attending the meeting, shall have full power to act as a substitute.

The resolution was adopted.

Mr. Gibson offered the following resolution :

Resolved, That it shall be the duty of the secretary to notify members of the Executive Committee of any meeting ten days in advance of such meeting, and members shall at once reply, stating their intention or inability to attend.

The resolution was adopted.

Mr. Briggs offered the following resolution :

Resolved, That the following form of ballot be used in the election of members :

OFFICE OF SECRETARY, A. I. A.  
.....1889.

DEAR SIR,—Please vote by striking out the alternative word under the heading "vote," and return this sheet to me at your earliest convenience :

VOTE.		APPLICANT.		LAY INDORSERS.			INDORSING MEMBERS.	
		Name.	Address.	Name.	Occupation.	Address.	Name.	Address.
No.	Yes.	.....	.....	.....	.....	.....	.....	.....
No.	Yes.	.....	.....	.....	.....	.....	.....	.....

.....Secretary A. I. A.

The resolution was adopted.

Mr. Carlin offered the following resolution :

Resolved, That the secretary shall inclose with each ballot for membership a stamped envelope addressed to himself, with the words "ballot for membership," printed on the outside.

The resolution was adopted.

Mr. Gibson offered the following resolution :

Resolved, That it shall be the duty of the secretary to notify each candidate for membership of the result of the letter ballot, and inclose a copy of the constitution and by-laws, and direct his attention to Article VII, Section 1, of the by-laws, and to notify the treasurer of the new members election.

The resolution was adopted.

Mr. Gibson offered the following resolution :

Resolved, That the questions referred to in Article X of the by-laws be referred to a special committee to be appointed by the chair, and to report at or before the next quarterly meeting of the Executive Committee.

The resolution was adopted.

On motion of Mr. Briggs, "that the committee of education be appointed by the chair," the following committee was appointed : Russell Sturges, professor pro tem, Columbia College ; William R.

Ware, professor architecture, Columbia College ; N. Clifford Ricker, professor architecture, Champaign, Ill. ; T. M. Clark, Massachusetts Institute of Technology, Boston.

Mr. Kendall moved that the Board of Directors now proceed to nominate substitutes for such of its members as were today elected and who may be unable to serve, and that such nominees be substituted in the order of nomination.

The motion was carried.

The following gentlemen were nominated :

1. Alfred Stone,
2. Levi T. Scofield,
3. W. N. Poindexter,
4. J. W. Yost,
5. E. C. Cabot,
6. G. W. Rapp,
7. W. S. Wicks,
8. N. S. Patton,
9. W. G. Preston,
10. A. J. Bloor,
11. E. J. Nickerson.

The resolution by Mr. Glenn Brown, presented to the convention and referred to the Board of Directors, was tabled.

The resolution related to new sections to be added to the by-laws after Section 1 in Article II.

Mr. Briggs offered the following resolution :

Resolved, That the schedule of charges adopted by the American Institute of Architects and the Western Association of Architects in 1884 be reaffirmed by the American Institute of Architects and printed as an appendix to the constitution and by-laws, and also in the form of a circular, with the word "minimum" prefixed before "charges." And if the circular be issued to non-members, it shall be plainly marked in large red letters "ISSUED TO NON-MEMBERS OF THE INSTITUTE" printed diagonally across its face.

The resolution was adopted and the meeting adjourned.

JOHN W. ROOT, Secretary.

CONVENTION NOTES.

All of the best architectural and building journals were represented at the convention.

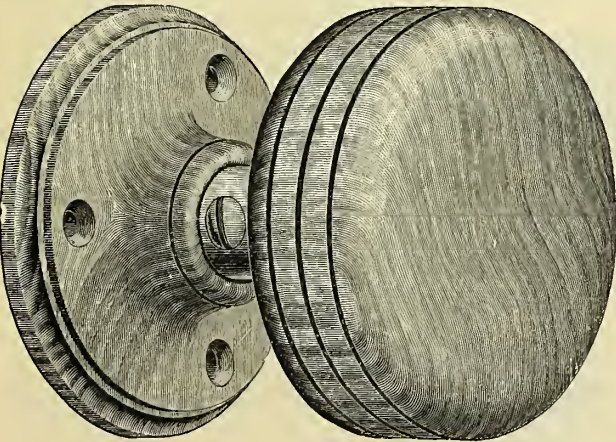
A drive through the suburbs of Walnut Hills and Clifton was given the visitors. About forty carriages were in the procession, which was led by a tally-ho coach. Upon this were seated the officers of the convention and members of the press.

The Committee of Entertainment of the Association of Ohio Architects, whose guests the visitors were, consisted of George W. Rapp, chairman ; Charles Crapsey, secretary ; H. E. Siter, treasurer ; I. W. McLaughlin, W. R. Forbush, J. W. Yost and H. C. Lindsay. Their work was well done, and a lasting credit to the committee and the association.

The best report of the convention by the local papers was that published by the *Times-Star*. Mr. Runyon, who so ably represented that paper, has a wide acquaintance with architects, and has made his journal popular by his thorough comprehension of the proceedings and his capacity for gathering all the important news. The *Times-Star* was the only paper to print President Hunt's able address.

The delegates from Chicago and the Northwest went by special car on the Monon Route and C. H. & D. Railway, and to those who took the day train the ride was full of incident. The train, a superbly designed and furnished vestibule, like all the through trains on the several branches of this popular railway, ran smoothly through the flat country of Illinois and northern Indiana and among the wooded hills farther south. According to the lady member of the party, the Wabash river was crossed five times before Indianapolis was reached. It was said that at her suggestion a "poem" was written by the newspaper man, "A Yellow Rose" furnishing the theme ; but this, like the river crossed, was voted too dry and uninteresting for publication.

Those courteous representatives of the Chicago Hardware Company, George H. Wells, of Boston, and T. M. Baker, of Philadelphia, had a superb exhibit of their hardware arranged for the inspection of the architects. A resolution passed by the convention relating to advertising matter, brought about by the objectionable methods of another concern in a different line, had no reference to these gentlemen, their uniform courtesy and tact making them welcome to every convention, and tending to popularize the firms they represent. It is the general opinion of architects that the proper way to bring building materials and appliances before them is through the medium of the architectural journals, but the exhibits brought to conventions by these gentlemen are always inspected with interest.



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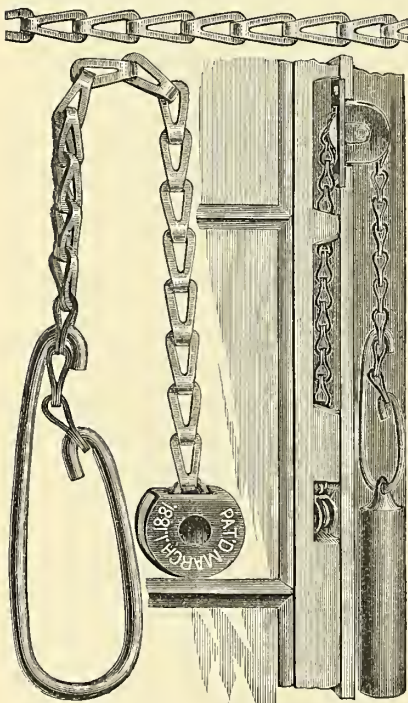


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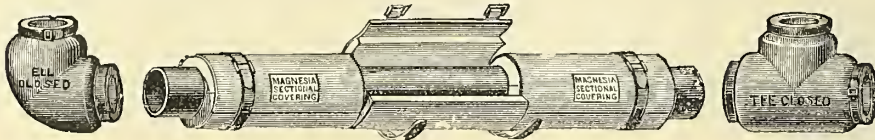
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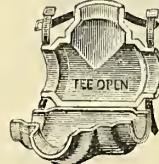
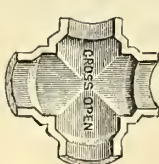
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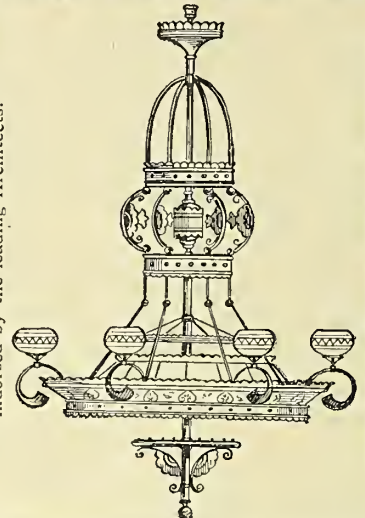
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# THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIV.

DECEMBER, 1889.

No. 7

DECEMBER, 1889.

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Consolidation of Architectural Associations Accomplished.

After two years of labor and the fullest possible consideration of the different interests and objects involved, the consolidation of the American Institute of Architects and the Western Association of Architects has been accomplished. That this consolidation will result in the strengthening and further elevation of the profession in America is hoped. That an inevitable result is the absolute loss of two years in association work is certain. It remains now for the profession to recognize and improve the opportunity for advancement thus made and resume the work that the Western Association was so active in inaugurating, and forcing it to a conclusion. The principal value of architectural association thus far has been in its purely social feature. This has been established. The adoption of a uniform style of contract is rapidly bearing the result looked for through its general use. In all other measures the committees in charge have simply "reported progress" either through neglect of their duties or inability to surmount the difficulties in the way.

Necessity for Individual Activity by Members.

The committees on legislation have, as a rule, done all that was possible to carry out their work, but all efforts at securing legislation are slow unless backed up by the entire influence of the public. This as yet has not been secured. The committee of the Western Association has not to our knowledge formed or sustained the organization of a single state association. The local architects, aided somewhat in almost every case by the editor of this journal, have met, formed their own rules of government and held their meetings, with little or no communication with the committee appointed to promote this necessary work. The work of the committee on statutory revision and that upon reform in the planning of public buildings has been prosecuted as vigorously as circumstances would allow. The difficulties in each direction are great and varied but in each a concerted action by the entire profession giving their strongest individual support to the committees would do much toward making their work effective. In fact, this consolidation of forces means more than a community of interests and a union of sentiment. It means that each member shall consider that his professional honor is pledged to these works of reform, and, more than that, if our thorough study of the situation means anything, to falter now and neglect to give all possible moral support to the committees in charge of national or local measures will place the profession where it was ten years ago and make any future work much more difficult.

Immediate Necessity of Obtaining a Legal Status.

The first work that should be accomplished, and with proper energy it can be, is the establishment of a legal status for the profession. It is our belief that all other work that does not have this end in view and for its direct object is useless. Why should state chapters and local chapters be formed but to secure this? Why should legal decisions be collected when without legal status the architect and the contractor are upon the same plane in the eyes of the law and can be and are (as in St. Louis) taxed as tradesmen. And if architects will look at their legal situation, and even their social status, compared with that of the two inferior professions, law and medicine, they will see that more



important than fees, more important than monuments of their skill, is the securing of a legal status which will declare architecture to be a profession and not a trade.

**The Officers of the Consolidated Association.** The officers elected and under whose guidance the new association will commence its work, are perhaps the most wisely chosen of any in the history of either association.

The continuance of Mr. Richard M. Hunt as president will do much to give the new body the confidence of the profession at home and sustain its character abroad. In Mr. John W. Root the association has a secretary whose work will be thorough, and who, by his prestige as an architect as well as great personal popularity, will cause the policy of the association to be vigorously carried out. The other officers, Mr. Treat, the treasurer, and Messrs. Carlin and McLaughlin, the vice-presidents, are equally capable and popular, and strong and active in association work. The executive committee is well chosen and will commence its duties at once. It is intended to hold a meeting about the beginning of the year, when the question of state chapters will be fully reviewed and charters issued, so that the present chaotic condition of state associations and local chapters will be reformed.

**Necessary Appointment of Standing Committees.** The consolidation convention, from a newspaper standpoint, was "light," and in reviewing the proceedings, the work left by the convention to be finished by the executive

committee is exceedingly heavy. One of the first matters that should engage the attention of that body is the reorganization of the committee on uniform contracts. There should be but three architects to meet the three builders and a seventh member should be chosen from among the architects, builders and owners in the city where the committee happens to meet. This committee should meet more frequently, and as far as possible perfect the work so well begun in the first draft of the contract. The chair neglected to appoint a committee on competitions, but as the Western Association expressed itself so well four years ago upon this subject, it seems that this committee could be discontinued without great damage to the association. On the whole the association can now settle down to solid work, as its membership is as comprehensive as the country and its roll of officers, headed by Mr. Richard M. Hunt, are among the most illustrious of the profession.

**Danger from Underground Electric Wires.** The earlier demands that electric lighting wires should be put underground were based partly on the danger to linemen and firemen in the discharge of their duties, partly on

inconvenience to the public from fallen wires, partly on inconvenience to the public by interruption of electric service from storms, high winds and fires, to some extent by the infrequent though possible danger to the public from crossed or fallen wires, while always it has been contended that the wires were a nuisance from the fact that they marred the beauty of the finest buildings. If the immediate danger from high-tension currents were removed, the foregoing reasons would still remain conclusive against the continued use of overhead wires. Public opinion is intermittent, it burns furiously for a brief period, and then, exhausted by its own energy, sinks back quiescent, having accomplished usually but a modicum of its original demands. Accordingly, in New York City, where electric wires of all

kinds are more numerous than in other American cities, part of the wires are underground and a large part still overhead. The recent alarming increase of fatalities from overhead wires, the sickening details given in the newspapers, and the publication of the fact that in New York alone there have occurred one hundred deaths from electric wires, have once more inflamed the public mind and given fresh impulse to the demand that all wires should be immediately put underground. Objections to underground wires have been raised from many points of view, though generally with reference to the expense of placing wires in suitable conduits and of making necessary repairs. These and kindred objections have been easily disposed of. In such matters a slight increase of expense is not to be given weight as against public safety, for throughout these discussions the public and the newspapers generally have assumed that the placing of the wires underground would insure the safety of life and property against danger from electric currents. In a recent issue of the *North American Review*, Mr. Thomas A. Edison argues that placing the wires underground, so far from insuring protection from dangerous or fatal shocks from high-tension currents, will rather increase the danger by bringing wires through which high-tension currents are forced into direct contact with a network of other wires and with systems of iron piping, or, indirectly through the medium of a connecting line of moisture or an electric arc, thus conveying the deadly currents into buildings in all directions to the equal danger of those who use and those who do not use electricity.

**The General Destructibility of Insulation Materials.**

The reasons which lead Mr. Edison to condemn the use of high-tension currents may be stated very briefly. The currents in use for electric lighting are low-tension, continuous currents; high-tension currents continuous or semi-continuous, and alternating currents. Any high-tension current, not properly insulated, is dangerous or deadly. The alternating currents in use are high tension with pressure of from one thousand to three thousand volts. But an alternating current of low tension is dangerous to the nerves of human beings at a pressure which would be harmless in a continuous low-tension current. The question then resolves itself into one of insulation. Experience shows that no insulation retains its elasticity and insulating quality when subjected for a long period to the vibration or pulsation of an electric current. A high-tension current or an alternating low-tension current may be safely used only so long as the insulating material lasts; and when the insulation fails at one or more points, there is danger. Until an insulating material can be found—and there is now no clue to such a material—that will withstand this current permanently, the only safe way is to use only a comparatively low-tension current with a pressure of not more than six or seven hundred volts, continuous or varying through a range of only a few volts. The use of such a system is controlled by no monopoly, the sole question is one of cost of outfit. The low-tension current requires a larger copper wire and more frequent power stations so as to shorten the distances. When so operated it can be made harmless and fully as effective as the high-tension current. Experience has proved that it can be made financially profitable. If Mr. Edison is right in his argument, there is no question as to the details of the legislation needed; and no mere pecuniary consideration should be permitted to stand in the way of such legislation.



## Romanesque Architecture.\*

### CHAPTER IV.

THE ABBEY CHURCH OF MOUNT ST. MICHAEL (FRANCE)—THE CHURCH OF WALTHAM ABBEY (ENGLAND)—PETERBOROUGH CATHEDRAL (ENGLAND)—CLOISTER OF MOISSAC (FRANCE).

The abbey church of Mount St. Michael presents in its plan an arrangement similar to that of Cerisy-la-Forêt, and recalls the same Latin and Byzantine influence. If the traditions about it are to be believed, it must have been built on the remains of an oratory erected by St. Aubert in the eighth century, and on the ruins of a church constructed in the tenth century by Richard I, grandson of Rollo. There are no traces of the edifice of the eighth and tenth centuries, but of the church founded in 1020 by Richard II, Duke of Normandy, there yet remains the transept and the greater part of the nave.

The church was commenced in 1020 by Hildebert II, fourth Abbot of Mount St. Michael, and whom Richard II charged with the details of the work. To Hildebert we must attribute those vast substructures of the Romanesque edifice which have such gigantic proportions on the western side. Instead of cutting away the summit of the mountain, the architect, chiefly not to lessen the majesty of the base, constructed a vast plateau, the center of which was level with the peaks of the rocks and whose sides rested on walls and piers, the piers united by vaulted arches, forming a sub-basement of perfect solidity. The immense structure, whose foundation is eighty meters above sea level, is admirable in every way, first from the grandeur of the conception, and second because of the effort it was necessary to make in accomplishing it in the midst of obstacles of all kinds resulting from the situation, the difficulty of supplying materials and the limited means of bringing them to the work. Figure 109 is the plan of the church after its completion. The dotted line is that of the choir, reconstructed in the fifteenth century; the dotted line on the west indicates the additions made by Robert of Torigni from 1154 to 1186.

The vast edifice erected on the artificial plateau constructed by Hildebert had at the time the form of a Latin cross, made by the choir, transept and nave, which was composed of seven bays. Three of these bays remain, the first having been destroyed in 1776. In the center the triumphal arches of the nave and choir, as well as the lateral arches of the transept, support the lantern tower of Bernard du Bec, thirteenth abbot of the Mount. He constructed the tower in 1135, and traces of it still remain on the fine faces of the present lantern tower constructed above the massive pyramid in 1602.

Here, as in the greater number of Romanesque churches built in northern Europe, and especially in Normandy, the central nave was covered with an open timber roof. The choir and apse were covered with barrel or quarter spherical vaults. The small apses of the transept were similarly vaulted, that is, with quarter spheres. The side aisles were covered with vaulting composed of groined arches, with ribbed arches in the spaces between.

As in Normandy, however, all construction seemed to tend toward a vaulted covering. The pillars were either small dressed stone ones or groups formed of half columns and round moldings. Their bases were a simple torus and a chanfered plinth; the capitals a rudimentary variation of the Arabic form.

The square piers are surrounded by four engaged columns (Fig. 109). The columns are placed on the side of the nave and rise to the upper cornice, supporting the beams of the timber roof (Fig. 111).

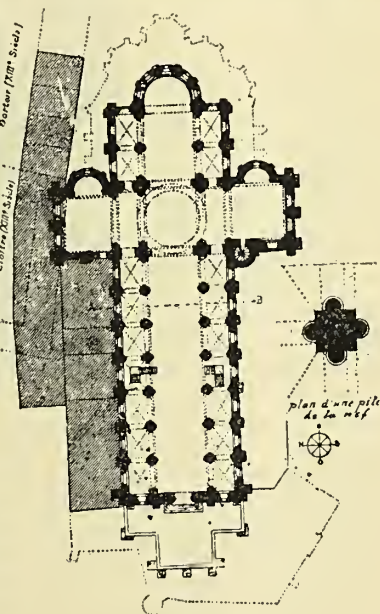


FIG. 109.

The three other columns, surmounted by the capitals, received the ribs of the lateral walls and the side aisles.

The transept and the small apses have kept their old arrangement, except for the open timber roof. The façade of the north side of the transept was modified in the thirteenth century by the construction of the cloister.

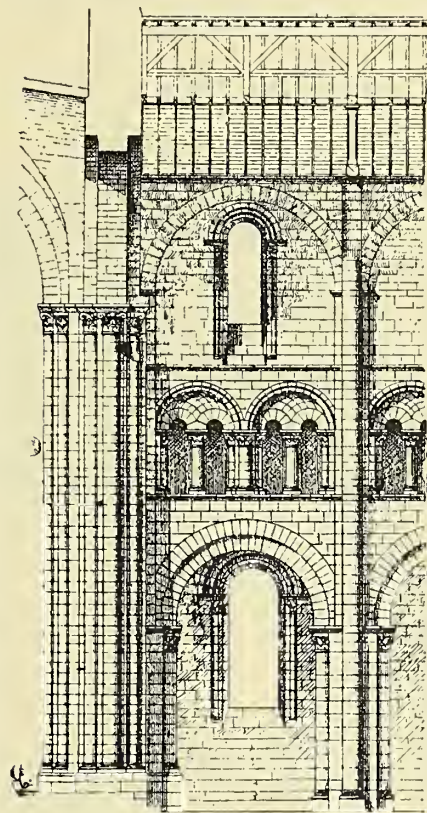


FIG. 111.

Romanesque architecture exercised in England a certain influence which was manifest from the earliest times of the Norman Conquest. This influence was natural, for edifices built toward the end of the eleventh century on either side of the channel were built by Norman architects or by those educated in Normandy where Romanesque architecture had made such great progress. After the Conquest, when the Normans overran England, they found there a Christian civilization centuries old. The national architecture, as far as we are able to judge by the occasional documents

that have come down to us, followed the basilica traditions in religious edifices. These traditions were rudely interpreted by the Saxons, who, either not knowing of or not daring to use the vault, covered their churches with wood. This system of roofing was so universal a practice of the native builders, that it is hard to cite in the entire English architecture of this epoch a single example of the vaulted nave. Even after the Norman Conquest we see the piers of high columns rising to the highest part of the nave, as if searching for imaginary vaults, stop abruptly under the painted or gilded panels of a wooden roof.

The abbey church of Waltham was built after this fashion at the close of the eleventh century, or at the commencement of the following one. The nave is composed of two rows of superimposed arcades, rising from the ground to the cornice, supporting the open timber roof without other connection with the side walls. The upper arcade is nothing but the traditional decoration, for it only opens like the lower into the side aisles which are one-storied and covered with an open timber roof. The interior wall of the nave is of great thickness and seems to have been built with the idea of easily resisting the thrust of the vaults of the nave. (Fig. 114.)

The general arrangement, and the details of the construction, recall the churches of Normandy, but especially that of Cerisy-la-Forêt, of which Waltham Abbey seems to be a servile copy, except in the small details of the upper arcade of the nave. It is interesting to compare the cut (114) with that of Cerisy-la-Forêt (108).

The church or cathedral of Peterborough, built or commenced in the first years of the twelfth century, presents a still more complete resemblance to the abbey church of Cerisy-la-Forêt.

The central nave is covered with wood and the side aisles are vaulted, with this peculiarity that the vaults are not ribbed but are carried upon pointed arches.

These side aisles are surmounted by galleries covered with an open timber roof, sloping in one direction, and opening onto the arcades which are in the central nave (Fig. 117). A narrow gallery arranged in the thickness of the wall of the nave, as at Cerisy-la-Forêt, affords, even in Waltham Abbey, a passage around the edifice at the height of the high windows of the nave.

In the center of the edifice rises a lantern tower, carried on four great piers, forming the cross of the transept and the nave, like the Romanesque churches of the continent. In the English church, as in the Norman, the archivolts of the arcades, the framework of the galleries, and especially the doorways, produced a profusion of linear

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.



ornaments peculiar to the Norman school, billets, dog tooth moldings, stars, imbricated designs, broken lines, etc.

The façade of Peterborough Cathedral rising between two towers situated at the end of the side aisles, is finished with a very heavy embattlemented cornice. The doors have round arches, without either lintel or tympanum, the door itself extending the entire height of the opening.

The greater part of the churches and cathedrals of England belong to the Norman epoch, but as they have been enlarged and transformed at different periods they only bear the traces of their Romanesque origin in the crypts or confessionals over which they were built.

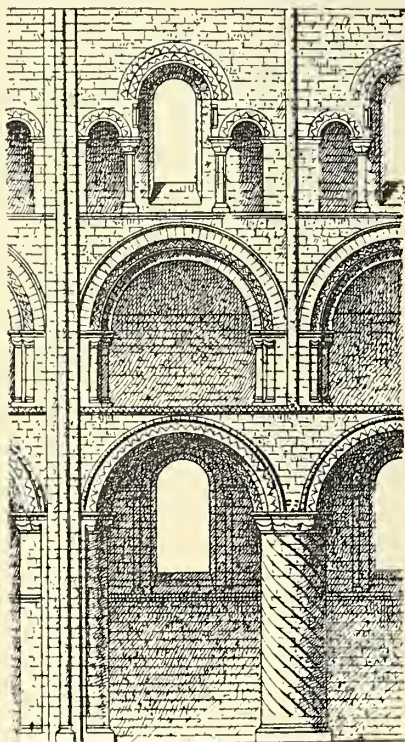


FIG. 114.

Winchester Cathedral, which dates from the end of the eleventh century, still possesses a transept and a large, original crypt. Other important crypts exist in Worcester and at Canterbury as well as in Gloucester, where there is also a choir of the close of the eleventh century.

Peterborough Cathedral, finished toward the end of the eleventh century, presents all the characteristics of churches built from the eleventh to the twelfth centuries, under the direct influence of continental

Romanesque architecture. It resembles them most strongly in the grandeur of its dimensions, the proportions of its arcades, and even the details of its ornamentation. These different primitive elements undergo a transformation and constitute the basis of English architecture, or rather Anglo-Norman, in which one always finds traces of its Romanesque origin.

The cloister of Moissac, if it cannot be classed among edifices of the basilica form, ought to be counted among the number of those that most closely resemble them by the system of construction. Its form is rectangular; its galleries, covered by an open timber roof, are built of brick, plain or molded. They are formed of a series of arcades of pointed arches, resting alternately on single or twin columns and on square pillars, insuring the stability of the fragile arcade (Fig. 118). The capitals of the small columns are very heavy in proportion to their diameter. These capitals, very richly but somewhat rudely carved, recalling the Byzantine traditions, as do also the large figures decorating the square pillars, prove the edifice to have belonged to the eleventh century. Fragments of the original building were used to reconstruct the cloisteral building in the first years of the twelfth century.

#### CHAPTER V.

##### ROUND AND POLYGONAL CHURCHES—CHURCH OF THE HOLY SEPULCHER AT JERUSALEM.

Without wishing to write the history of the round temples, it is but fitting to recall one of the most ancient of this kind of building, the Pantheon of Agrippa at Rome, which was studied in the first part of this work with the attention which one of the masterpieces of Roman genius merits.

"The long list of Romanesque architecture presents a certain number of churches and chapels remarkable for their round or nearly round form. They gave the idea for other edifices in the earliest age of Christianity, though these in their turn were taken more than once for heathen monuments. The Holy Sepulcher, whose conquest was the aim of the first Crusade, was not the great and magnificent basilica which Constantine had built on the plan which tradition assigned as the site of the tomb of the Savior. Twice reconstructed after having been twice destroyed, once by the Persians, another time by the Arabs, it received in the seventh century

the form which it has today, that of a rotunda with two-storied aisles. This rotunda, however, which the moderns have finished with a cupola of masonry, received and preserved during the entire course of the Middle Ages a wooden covering in the form of a truncated cone, open at its summit. In this the transept of the Holy Sepulcher resembles the hypethal temples of antiquity. Its plan, moreover, was not a new one. Rotundas had been constructed for the exercises of Christian worship before the sacking of Jerusalem by the Persians, as witness, see St. Constance and St. Etienne-le-Rond, at Rome, and our St. Germain-l'Auxerrois at Paris, which was originally a round temple, and many more. It cannot be said that the remodeled church of the Holy Sepulcher was the first one built on the round plan, but it is certain that under this form it became a type that was imitated through all Christendom. History shows us that in the eleventh and twelfth centuries in France they made many copies of it

on a grand scale. They did not last, however, for we see in their places churches of later construction of the ordinary form. The disappearance of these churches, constructed by Romanesque architects in imitation of the Holy Sepulcher, was wholly due to the faults of construction in their coverings.

Sometimes they endeavored to cover them with cupolas, which, however, fell in. They then sought to avoid the difficulty by constructing a cupola with an open timber roof, as in the Holy Sepulcher at Jerusalem, but such constructions were a prey to fire, and in their ruin brought down the whole buildings. However, two of these attempts, St. Benignus at Dijon and the church of Charroux, remained till the first years of this century, thanks to the fact that the greater part of their diameter was over the side aisles, so that the central rotunda was very small, and, consequently very simple to cover. St. Benignus was also hypethal.

The smaller imitations which have been preserved enable us to conjecture what the greater part of these grand edifices were like."

The first buildings of the church of the Holy Sepulcher at Jerusalem were erected by order of Constantine. Commenced in 326, they were finished in 335, the year of their dedication. They consisted of a great basilica, courts and colonnades. These magnificent edifices were totally demolished in 614 by Chosroës II, King of Persia. To these victorious bands were joined one thousand Jews, who were the most implacable in the work of massacre and destruction. The work of restoration was undertaken by a monk named Modeste, superior of the convent of Theodosius, and later, patriarch of Jerusalem. With the aid of St. John the Almoner, patriarch of Alexandria, it was accomplished in the space of fifteen years. Modeste was not able, like Constantine, to cover the whole of the holy place with an immense basilica; he was forced to construct on each venerated spot a little church, according to the tastes of the time. It was in this new church of the Resurrection that on September 14, 629, the Emperor Heraclius II, in his turn conqueror of Chosroës, bore on his shoulders the wood of the true cross, a precious trophy of his triumph. But the reign of the Christians was not of long duration. Eight years after the exaltation of the cross the disciples of Mahomet, conquerors of Heraclius and of Jezdegerd, masters of Syria and Persia, attacked

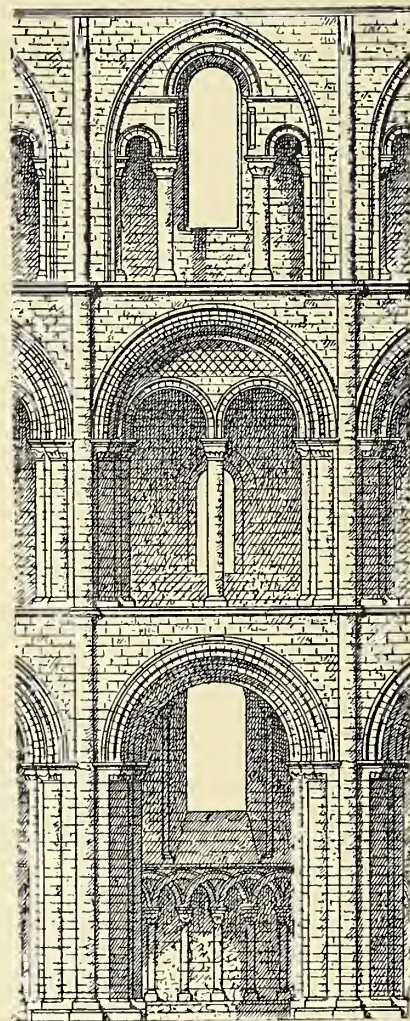


FIG. 117.



Jerusalem. The patriarch Sophronius placed himself at the head of the inhabitants, and, by a vigorous resistance, obtained at last a capitulation. The first article stipulated that the caliph himself receive the submission of the vanquished. Omar came from Medina. He concluded before the gates of the holy city a treaty which guaranteed to the Christians the possession of their churches and freedom to worship in them. Then he entered Jerusalem praying on the steps of the eastern entrance of the church of the Holy Sepulcher, and laid the foundation of a mosque on the ruins of the temple, after having designated the site of a grand cupola which commonly bears his

sheim, crowned by an ovoid cupola, is an octagon whose arrangement on a smaller scale is nearly identical with that of Aix-la-Chapelle. As in that, the cupola rises on piers united by superimposed arcades; the lower ones correspond to the side aisles of the edifice, the other to the upper galleries surmounting these side aisles. The great difference lies in the form of the exterior wall. It has not sixteen sides as at Aix. It is octagonal, and the vaults superimposed on the side aisles form alternately square and triangular compartments.

At Aix-la-Chapelle Romanesque architecture made its appearance; it is established in Ottmarsheim by the systematic use of the ribbed arch in the vaults. However, the influence of Byzantine art is very strongly marked by the absence of the buttress, and by the details of construction.

The monument of Rieux-Mérinville, near Carcassonne, which was built at the end of the eleventh century, is evidently one of the numerous imitations of the church of the Holy Sepulcher at Jerusalem.

Circular churches, or those which approach more or less to that form, according to the number of sides inscribed in the circle, are very rare in France, and even in the rest of Europe.

The church of the Holy Sepulcher at Cambridge must have been built in imitation of the Palatine chapel, rather than after the example of the celebrated church raised at Jerusalem over the tomb of Christ. According to English authors, it must be the oldest round church in England. It dates back to the time of Henry Beaucherc, who died in 1135, or at least to the first half of the twelfth century. It has much analogy, in its architectural parts, to Peterborough Cathedral,

which is certainly an imitation of the Norman churches of the twelfth century. At all events, the influence of Norman Romanesque architecture, clumsily interpreted by the Saxon builders, is plainly visible in the arrangement of the superimposed arches resting on the coarse capitals of the pillars, massive, heavy and low, and in the construction of the vaults of the side aisles. These were of

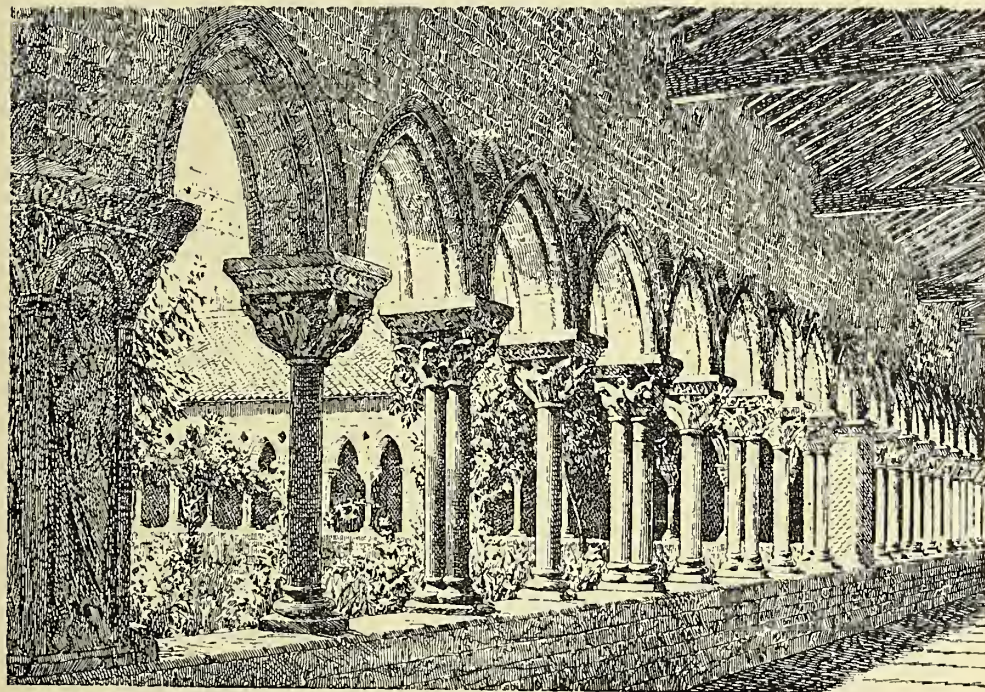


FIG. 118.

name. From this time till the commencement of the eleventh century the church of Jerusalem experienced different periods of repose and persecution.

The new sovereign, Hakem-Biamr-Illah, in 996, urged on, says Raoul Glaber, by the Jews of the West, ordered the complete destruction of all the churches in Jerusalem. The orders of the caliph were executed most rigorously; the churches of the Resurrection, of Calvary, of St. Mary, of St. Helen, fell under the hammer and torch of the spoiler. The Holy Sepulcher alone escaped. The same year as that of the destruction of the holy churches (1000), permission was given to restore them. Raoul Glaber says, there flocked from all parts of the universe crowds of pilgrims bringing money to be used for the rebuilding of the house of God. But the resources were not sufficient, and they had to content themselves with only a partial restoration. The reconstruction was resumed under the direction of Greek architects, and was finished in 1048.

"From this epoch till the time of the first Crusade, these edifices seem to have experienced no change. During the first years of the Frankish occupation, the conquerors, occupied in strengthening their conquest, had no leisure to work on the enlargement of the churches. Some years later, in the first years of the twelfth century, the Crusaders joined in one work and united in a single monument all the sanctuaries up to this time isolated. This construction still exists."

## CHAPTER VI.

THE CHURCH OF OTTMARSHEIM (ALSACE)—THE CHURCH OF RIEUX-MÉRINVILLE (FRANCE)—CHURCH OF CAMBRIDGE (ENGLAND).

The Palatine chapel of Charlemagne at Aix, built after the model of St. Vitale at Ravenna, which was itself copied from the Golden Temple which Constantine had erected at Antioch in honor of the Virgin, had a great influence on art in the neighboring countries. This new form, imported from the East, and adopted by the most powerful sovereign of his time, could not fail to find imitators among the French architects, who were under the most direct influence of Carolingian art.

The octagonal church of Ottmarsheim, in upper Alsace, was built, according to Roman chroniclers, by Rudolph of Suabia, brother of Vernher, bishop of Strasburg (Fig. 123). It is almost an exact copy of the Carolingian church at Aix. The central nave of Ottmar-

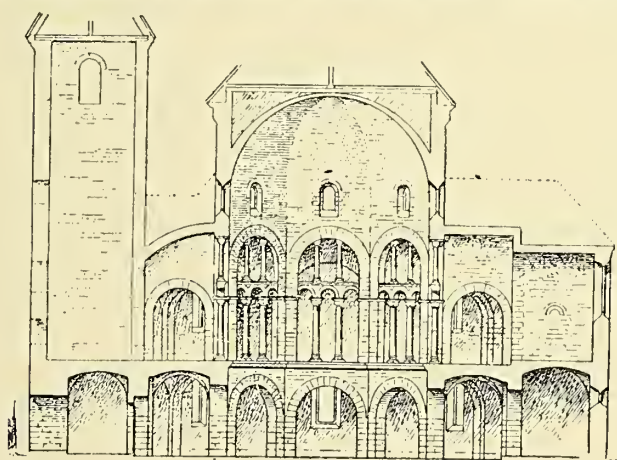


FIG. 123.

ribbed and groined arches, very solid, but very rudely treated by the timid builders but slightly acquainted with the architecture that they were trying to imitate.

The attempts of the Anglo-Norman architects of this time are nevertheless interesting to study, because one sees the efforts that they made to build lasting monuments, which, however, have endured rather by the rude solidity of the pile than by wise combinations made by the builders. The rotunda of Cambridge presents this peculiarity, that contrary to the ancient edifices, that served as models, the lower stories are circular and the cupola octagonal.

The church of the Holy Sepulcher of Cambridge is composed of a circular central nave of two stories, surrounded by similar side aisles without a second story. In each story eight heavy columns



on an equally circular plan are joined by arcades of superimposed ribbed arches. The upper gallery, whose arcades are in pairs, open onto the central nave, which is surmounted by an octagonal cupola. The interior angles are strengthened by engaged columns in the vertical parts and by ribbed arches in the round part of the cupola, whose thrust is balanced by the considerable increase of thickness of the wall. Half circular windows, cut in the faces, light the central nave. The side aisles are lighted by windows splayed in the interior, and the high galleries above the vaulted side aisles are covered with an open timber roof.

(To be continued.)

### Development of Architectural Style.

BY GODFRIED SEMPER—TRANSLATED AND ARRANGED BY JOHN W. ROOT, ARCHITECT.

AS early as in 1852, under the heading of, "The Four Elements of the Art of Building," I published a short treatise on the origin and historical development of certain inherited and generally accepted types which are being used in the art of building, these elements being expressed in generally intelligible symbolism. This experiment attracted very little attention, but the author has saved it from utter oblivion by adding to the essay some attacks upon it, based upon the authority of a celebrated art critic who was then all-powerful. The author was honored with a special reply to his essay by this great authority, but the purpose of this reply was only to refute the contradictory views on the polychromics of ancient architecture and sculpture contained in the original essay. The real substance of the treatise, however, was dismissed with one single supercilious remark which so well characterized the then prevailing tone among literary men and artists, that I beg leave to repeat it verbatim. At the end of his essay directed against me, Kugler says:

The second subject which Semper's essay deals with has a peculiar interest, from the standpoint of history, poetry or art. The author goes back to the primitive condition of the most ancient peoples. From them and from their varied historical positions he discovers the elements of architecture and the course of development which architecture was compelled to take. It is fascinating to descend into dark regions of history, guided by an artist full of imagination, and our own thought is given thereby a valuable impetus, even if great imaginative power is needed to draw conclusions from these dissolving views. Once before I had publicly announced and completely prepared an essay on antique polychromics, but I was deterred from publishing it, because the well-known work by the above mentioned art critic upon the same subject had just appeared. In the same manner I had publicly announced the elaboration of the theme which was only touched upon in his essay; but, owing to the above cited assertion, it is still unpublished. I made the mistake of losing confidence in my own conviction.

Every phenomenon, whether of art, science or nature, has an origin, and the inquiry after it and investigation of it is the source of all truth, the Alpha and Omega of all knowledge. This inherent impulse of man, which forces him back to the cause of things, guides him in his work. Every religious system has its own cosmical basis; every constitution may be called the embodiment of a certain prevalent consciousness of the normal condition of society, and of its origin. Under the supremacy of architecture, the arts served to illustrate prevailing social, constitutional and religious systems, and proceeded from the conceptions upon which those systems were based. They existed always and were everywhere acknowledged to be the most effective elements in the more systematic developments of such systems, propagating and strengthening them.

The origin and development of the art of building are as clearly entitled to an investigation as are the natural sciences or comparative philology. We find also a special impulse for such researches in this field of art, as it is true that they lead to the most important principles and rules for new art creations, while the doctrine of evolution (to illustrate) will never reward the natural philosopher with similar success. It may be considered too visionary to base the possible cause of a type of art creation, or guide for art invention upon researches into the origin, evolution and significance of traditional types of art, but we must admit that these researches give us certain fixed points which serve as vantage ground, facilitating the survey of that varied abundance of objects which we meet in the sphere of the world in miniature with man as a creator. It must further be admitted that they are of use in the more accurate valuation of the present condition of art and of the tendency of our modern efforts in this direction. They are therefore of great practical value, and are by no means merely indulgence in useless speculation. We are unintentionally led, or rather forced, to comparisons of this kind and to inquiries into the origin of building styles, if we see with our own eyes a series of beginnings of so-called architectural styles, whose would-be

inventor feels himself inspired to devise new kinds of buildings which shall be purely practical; for we live in an age of inventions, and our architects wish to keep abreast of the time, nor do they lack a high patronage nor the necessary opportunities.

Did we not all witness when Louis Napoleon, assisted by his faithful Prefect-de-Seine, Haussmann, overthrew the foundation of the old historical capital of France, to rebuild it on a new plan, that he aspired in this manner to settle with the past of France, and attach her future to his name and dynasty, thus making himself a worthy successor to the mighty kings and builders of the past. The future alone will show to what extent he succeeded in realizing his lofty aims, but we may doubt even now whether his millions-absorbing building operations advanced architecture one single step; it is certain that there is no peculiar invention in art perceptible during that revolutionary time, or in consequence thereof, and that, in spite of all the rage for innovation revealed, his creations are characterized by an almost complete lack of originality and fertility.

The artistic power and activity of the French has by no means grown impotent. They have but retired to departments that are far removed from monumental art. This fact always indicates diseased conditions and approaching decay of architecture. A certain conservatism, however, a respect for inherited forms which the Frenchman preserves in spite of all his vacillation, and which, after many oscillations, always recovers its balance, still protects France against the total decay of her monumental art. This inherent respect is assisted by that sound public judgment in art matters which was cultivated by the people of the great metropolis of Paris during many centuries, and cannot easily be found anywhere else in modern times. The features of the Neo-Grec and its constrained essays at decoration; the false, coquettish romanticism of the Neo-Gothic and other aspiring innovations of similar intent, have outlived themselves in a very short time in Paris, and find imitating admirers only among strangers.

The new opera house with its boastful finish, for which thirty or forty millions were spent; the no less objectionable Palais de Justice, with its constrained, mannerized and lying front, these were all thrown into the *charivari* long ago. They are not exhibited as examples of right doing, but pointed out as things of terror, showing artists and laymen how not to build. Simultaneous manifestations of the same kind, although infinitely less grand, appear in other countries, but they are far more dangerous in their consequences.

Let us, in a few words, touch upon the condition of German art.

In modern times there has been more hard work done in style-making here than anywhere else, partially according to recognized orders, partially by ingenious architects on their own motion. In such a manner was developed in Munich, the celebrated "Maximilian style," according to fundamental desire. It is based upon the following profound idea: Ours is a mixed culture; it is composed of elements of all earlier cultures; consequently, our modern building style must be a mixture of all possible styles of all times and nations, and must reflect the entire history of culture. The consequences of such deductions are shown by the latest productions in the City of the Muses, on the shore of the Par. Add to this the multitude of private style inventors, who show their cheap inventive genius in large and small residences, railway stations, and many other kinds of buildings. They proceed largely from the erroneous supposition that the question of style is principally a constructive question, and they do not acknowledge the inherited traditions of art symbolism. They thus attained the merit of contributing their mite to the prevailing Babylonian confusion. Another kind of style-makers are the so-called tourist architects, who, from their excursions into foreign lands, bring home and dispose of a new style every fall. Finally, we must mention those that find in the medieval so-called Gothic, the future of national architecture and their own as well. In the latter respect they seldom make a miscalculation.

Contrary to these practical solutions of the style problem, an opposite view has gained headway. Building styles, according to this, are not invented, but develop in various departures from a few primitive types, according to the laws of natural breeding, of transmission and adoption. Thus the development is similar to the evolutions in the province of organic creation. In the support of this view we may cite Hermann Grimm, the biographer of Michael Angelo, who says, "It may be taken for granted that where sudden contrasts appear in building styles, they must be attributed to the influence of distant examples, or to the loss of the gradually connecting links." Other authorities in the history of art express the same opinion on this subject. As to the application of the celebrated axiom, "Nature does nothing by leaps," and of Darwin's doctrine of evolutions upon the special world of the little "after-creator" (man), it seems somewhat



doubtful, considering that monumental science very often exhibits the monumental illustrations of knowingly retained objects of the simultaneous and successive forms of culture of the nations.

The old monuments are very correctly designated as fossil shells of extinct organisms of society, but these shells did not grow into the back of the latter, like snail shells, nor did they shoot up like coral reefs according to some blind process of nature. They are free creations of man, who used intelligence, observation of nature, genius, will, knowledge and power, in their production. Therefore, we must consider the free will of the creative mind of man as the most important factor in the problem of the origin of building styles. It was naturally controlled by certain higher laws, which were traditional, of the requisite and the necessary, but it appropriated and utilized them through free, objective conception and application.

In this regard, moreover, the phenomena of the history of art are identical with those of the history of human culture, whereof the former is a subordinate but integral part. The history of mankind would merely tell us of chaotic conditions of society, if it were not for the temporary interference of moving and organizing forces, of powerful individuals or corporations who, through their mighty pre-eminence, direct the dull, fermenting masses, and force them to condense their ideas to a historical nucleus, and to travel a certain established road. History is the successive work of individuals who understood their time and found the plastic expression for its requisitions, but wherever a new civilizing idea took root, and was accepted as such in general knowledge, there it found architecture at its service to define its monumental expression. Its powerful civilizing influence was always recognized and its works were intentionally and knowingly impressed with the mark of the prevailing religions, social and political systems, thus making itself their symbol.

But this new impulse was not the work of the architects. It was the issue of the great regeneration of society. Owing to the incompleteness of our exact knowledge in the department of monumental science and of ethnology in general, it may prove to be difficult, if not impossible, to demonstrate this sentence. Our time, too, is limited, and we can only slightly touch some curious data in the comparative history of architecture, which are of great importance. Nevertheless, I beg leave to set forth a short definition of what I wish understood by the term "style."

Style is the conformity of an art object with the circumstances of its origin and the conditions and circumstances of its development.

From a stylistic point of view this conformity does not strike us as something absolute, but as a result. Style is derived from the name of the pencil, the tool which the ancients made use of for writing and drawing. It is, therefore, a very suggestive word for the relation of form to the history of its origin. But the tool requires a hand to guide it, and a will to impel the hand. Here we find indicated, therefore, the technical and personal elements of the origin of a work of art.

Thus, hammered metal requires a different style from castings. Thus we say, for instance, Donatello and Michael Angelo are related in style, both assertions being equally correct. Furthermore, the tool and the hand that guides it require the material to be treated, the shapeless matter which is to be converted into form, and which should be reflected and revealed by the appearance of every work of art. The Greek marble temple, for instance, differs in style from the otherwise almost identical temple from Proas stone. Thus we may speak of a wood style, brick style, or stone style. But there is another element in art which stands higher than matter and which really forms the soul and substance of every art creation; it is the subject, the theme used for artistic application. As this is the most important and decisive element, we shall limit our essay to its exclusive consideration.

The question arises, "What, in most general conception, is the subject of all efforts in fine arts?"

In my opinion it is man in all conditions, and in his relations to the surrounding world, namely, man first, as individual, the family; second, man in a collective sense, the state; third, mankind, the ideal man as the highest object of art.

On the subject of culture one might be induced to tread the thorny path of speculation, to describe the historic, primitive conditions, and comment on the well-known tenet of Aristotle: "Man is a social animal; the state is older than man." But, fortunately, the subjects for artistic fertilization which obtained form by the creative power of man were never formed by the true conditions of things, but always by traditional subjective conceptions of this true condition of

things. According to these old traditional conceptions, the individual who knowingly separated himself from general telluric existence was always considered the element of mankind. This conception serves as a basis for all traditions of architecture.

We are led to this conclusion by the following curious fact; there are decorative elements used by architecture, partly to accentuate the proper relation of parts of a work of art, partly to designate their separation and their joint effect, partly to relieve its relation to the universe upon which it is based, and, finally, partly to illustrate the purpose which the whole or every part of it serves. All these art symbols owe their origin to the adornment of the body and to some procedures of the most primitive family industry directly connected with such adornment. These have retained their traditional validity up to this day in spite of all the changes they underwent for millenniums, and they cannot be replaced by anything fundamentally new.

Adornment is really a very curious culture, a kind of historic phenomenon. It is one of the privileges of man alone, and it is perhaps the first he made use of. No animal adorns itself; the crow strutting with false feathers is known to be a fabulous creation. Adornment is the first important step toward art; in adornment and its laws is contained the complete codex of formal esthetics. That striving for individuality, that separatistic sense in man, which is one of the two principal elements of human development, tends to express itself in adornment, for by adorning anything, be it alive or inanimate, I bestow upon it the right of individual life. By making it the center of relations that pertain to it alone, I elevate it to the rank of a person. I must cite here another important example.

The domestic hearth of the wandering nomad, with its sheltering primitive roof-covering, remained through all times the sacred symbol of civilization, and retained its bright consecration as altar and as temple-cell. It was the fundamental form of the concealed Egyptian sekos, the Chaldaic Assyrian pyramidal superstructure and the Jewish tabernacle, through all phases of culture to the Holy Kaaba and the Christian Tabernacle, added to this separating inclosure and the hearth-protecting lower structure. We will find all the inventions of architecture expressed in those few primitive motives borrowed, we might say, from the first couple in Eden.

Man as a social creature; architecture in the service of religion and the state. The decentralizing tendency toward independence and individual existence is balanced by the centralizing sociability, created by external circumstances, by the battle for existence amid dangers that could be met by combined forces only. Both elements, the centrifugal power of the instinct of independence and its opposite, the instinct of subordination, were always active and often counter-balanced each other even in the most ancient times. This is evident from the fact that the oldest great centers of culture arose in direct proximity to the abode of wandering nomad tribes. The same contrast was necessarily a foe to art.

Terrific natural phenomena may have originally caused the dispersed groups of men to throng together in safe places. This idea, for instance, prevails in China, whose history begins with accounts of an all devastating flood, followed by a golden age, during the reign of Jao, the glory of which can never again be equaled. The same idea is contained in the tale of Nimrod and of the construction of the Babylonian tower.

According to another view, the crawling swarm of mankind is organized like a colony of ants, grown out of the ground in which it toils. Upon this idea, upon the unalienable rights of possession by birth and of autochthony is based the aristocratic priestly constitution of the new empire of Egypt.

Still another view, quite different from this, assigns to society a warlike origin and institutions. This latter conception is probably the most correct one, for war of all against all is certainly the natural condition of men. In that way they first tried the advantages of discipline and joint action, before thinking of combining to build dams and canals, and thus extort blessings from resisting mother earth. Relics of warlike institutions may be discerned almost everywhere; their traces may be found in the ancient partly theocratic empire of Egypt; and even in the new empire, wherever slavery, bondage, caste divisions and absolute rule are found, they are certain signs of their own mastery in the past.

We, therefore, begin with the warlike states, where the fortified camp — the castle — forms the fundamental motive of monumental art. It serves as model for temples, palaces, private residences, and even suggests the plans of entire towns. This motive predominated throughout ancient Asia, and its influence can be seen there even yet. The province of Mesopotamia is most instructive in this regard. It is known that southern Mesopotamia (the land of the Chaldeans)



was conquered by culture at a time almost pre-historic, from which no monuments descend to us.

The earliest traditions represent the inhabitants as a conglomeration of many races and tongues—Semites, Arians, Turanians and Kuschites promiscuously mingled. It seems, therefore, that this fertile territory has been subject to manifold invasions, not only during the later centuries, but from the earliest times. The table-lands of Asia sent forth their rapacious sons, who, under the banner of a hardy leader, appropriated by force the luxuriant low river lands and subdued with little difficulty their inhabitants, who were enervated by voluptuousness. They founded a state which had a military communistic basis, the ruler being sole representative of right and property. For a while the new government developed immense power, but the sudden change, the mixture of inherited rudeness and acquired luxury enervated the conquerors; the great lieges rebelled and made themselves independent; the state crumbled to pieces, and, thus weakened, finally became the booty of another lucky conqueror.

(To be continued.)

### Architecture in the West.

ONE of the most critically exact, powerfully analytic and, withal, unbiased comments upon the present phase of American architecture appears in the *Atlantic Monthly* for December from the pen of Architect Henry Van Brunt, of Kansas City, and as such, worthy a full reproduction in these pages, though space will permit of but a liberal excerpt. While the article is written for the lay reader much of it should be read thoughtfully by the professional brother, who, by the aid of the writer's eyes, may not only see the new and much talked of and hoped for "American style" slowly developing, but may, as in a drama, see the form of the actor pressing against the curtain that is about to rise and disclose a new architecture that is all our own, and the product of American social and commercial necessities, already a substantial and permanent fact.

After outlining the effect of the slow developments of civilization upon architecture, the writer says:

Civilization is advancing into the wilderness of the great West like a brimming and irresistible tide which knows no ebb. Its first waves of occupation bear upon their crests a human element of astonishing energy and force. No conquest or crusade of history has been accomplished with a greater display of hardy intelligence. It has planted cities and established civil order upon virgin soil in less than thirty days. The external aspects of these first occupations are remarkable for the skill, directness and economy with which means are adapted to ends. The first settlers are comfortably housed in a week, so that all the processes of simple domestic life are made possible without delay. Structures to accommodate the land office, the saloon, the variety store, the railway station, the bank, the school and the church arise to meet the emergencies of border life, and the visible town is begun. These structures, of course, have value only as temporary make-shifts; but as material prosperity increases, and with it the ambition for permanent investments, the way is open for a much more definite expression of thought in building. At this stage of development the natural desire of every citizen to own property of the best possible appearance at the lowest possible cost leads to what may be called an architecture of pretense—an architecture intended to appear better than it is. This architecture, or, more properly, this method of building, has, without essential local characteristics, spread over the entire occupied territory of the West. It has met for many years, and will meet probably for many more, all the practical requirements, and has flattered the crude artistic aspirations of millions of intelligent and exceptionally ingenious and prosperous people. It must, therefore, be respectfully considered as, at present, the vernacular art of the country, though, when judged by the most liberal and catholic canons of educated taste, it fails to satisfy *in esse* if not *in posse*. Nowhere else in the civilized world can be found anything resembling it. It is peculiar; it is ours.

I have called this characteristic and almost universal expression of western civilization an architecture of pretense, because of its ambition and of its desire to make a vain show with small means. No people in the world understands cheap construction and economical methods of building so well, and is so inventive in providing for it. But, unwilling to let it appear what it is and to let it grow into a legitimate expression of art by natural processes of development, it has been forced to assume forms which do not belong to it, which contradict its proper functions, and which are devised to satisfy false and unsettled ideals of beauty and fitness. The facility with which wood and galvanized iron may be molded, painted and sanded to imitate stone or other nobler materials makes this baleful process possible, and tempts the builder to mask his honest work with crude travesties of conventional art.

It must be admitted that this method of architectural masquerading had its origin in the eastern part of our country; but there, under the influence of better examples and higher education, it soon fell into disrepute, because, theoretically, it is an offense against fundamental principles of art, so gross that it cannot survive the first touch of intelligent criticism; and, practically, because this architecture of pretense cannot stand the test of time. Like all other experiments

in the evolution of forms, only the fittest remain. But the West, eager to anticipate the fruits of success, too impatient to wait for a natural growth of art, ambitious to emulate the older civilizations, is, for the moment, contenting itself with an appearance. The vernacular style in the remoter districts has still undisputed sway, and, in the hands of uneducated builders, plays with these dangerously facile materials such fantastic tricks before high Heaven as make the angels weep, and give no true and permanent satisfaction even to those whom they are intended to surprise and delight. It serves, for the time, to confer upon the newly built streets of the West a delusive aspect of metropolitan completeness and finish, until, after a few years, the paint wears off, the wooden sham begins to decay, and the galvanized iron to betray its hollow mockeries. "A thing of beauty is a joy forever," but a thing of cheap and vulgar ostentation, by a happy accident of fate, finds speedy oblivion. It is a piece of singular good fortune that the vernacular style has thus within itself the seeds of its own dissolution.

After reviewing and comparing the present building methods in European countries and the limited knowledge of each other's work enjoyed by the architects of the Middle Ages, the writer continues:

I believe I am justified in stating that what, for the want of a more convenient name, I have called the vernacular art of the West—that which accompanies the first advances of civilization into the new lands, and lingers long after the successful establishment of all the institutions of civil order and prosperity—will not be recognized in the future history of American architecture; much less, that it will be stigmatized as a reproach. In fact, it is merely preliminary to architecture, though for the moment it pretends to be the real thing. It is evidently a hasty growth out of the immediate necessities of an enterprising people, too busy with the practical problems of life and the absorbing question of daily bread to have established ideals of art, or to have deliberately formulated in building an adequate expression of their civilization. It is an art whose essential characteristics have been derived from expediency—an art which has been mainly concerned with mechanical devices for quick and economical building. These devices have been invented by practical men to meet practical wants in a practical way. When freed from the misleading adornments imposed upon them by ignorance and pretense; from shams of wood, galvanized iron, machine-made moldings, and all the other delusive rubbish of cheap deceit, which have no connection whatever with the structure, these practical devices will develop style. Until these quips and cranks of undisciplined imaginations shall have shabbily descended into their inevitable oblivion, and have been replaced by methods of decoration developed out of the construction according to the spirit of precedents furnished by the best eras of art which remain to us for our delight and instruction, deliberate and permanent architecture will not come into existence.

Upon this simple proposition rests the hope of architecture in the West.

Chicago seems to have fairly won the distinction of being the fountain-head of architectural reform in the West. The healthy impulses from this active and impulsive center are felt in the remotest towns as soon as opportunities have occurred for permanent improvements. The dangerous liberty which the entire absence of schools, traditions, precedents, and consequently of discipline in art has conferred upon the architects of the New World, and more especially of the West, and which has given rise to all the crudeness and vulgarity of our vernacular building, has proved, in the hands of a few well-trained young men in Chicago a professional privilege of the most conspicuous importance—a privilege, indeed, which has not been enjoyed to the same extent in any other city in the world. The restless enterprise and public spirit of the western metropolis, its great accumulations of capital, the phenomenal growth of its commercial and social institutions, and the intelligent ambition of its people to achieve a distinctive position in all the arts of civilization have given abundant opportunity for monumental expressions in architecture. The manner in which these opportunities have been used during the past eight or ten years gives encouragement to the hope so long cherished that we may at last have an American architecture, the unforced and natural growth of our independent position in art.

It is not to be understood that these fortunate men have deliberately set to work to invent a new architecture. They have been too well trained in the best schools and offices of the East, and often by travel and study abroad, not to respect the great achievements of the past, and not to make the fullest use of their rich inheritance of architectural forms. But their merit consists in the fact that some quality in the civilization of the West—its independence of spirit, perhaps, its energy, enterprise, and courage, or a certain breadth of view inspired by its boundless opportunities—has, happily, enabled them to use this inheritance without being enslaved by it. \* \* \*

The hope that we are entering upon such an era rests mainly upon the fact that the characteristics of the best new work of the West are based, not on the elegant dilettanteism, which is appreciated only by the elect, but by the frank conversion of practical building into architectural building without affectations or mannerisms; thus appealing directly to the common sense of the people, and creating a standard which they may be capable of comprehending. It is based on a sleepless inventiveness in structure; on an honest and vigorous recognition of the part which structure should play in making a building fitting and beautiful; on an intelligent adaptation of form to the available building materials of the West; upon the active encouragement of every invention and manufacture which can conduce to the economy or perfecting of structure and the embellishment of structure; upon an absolute freedom from the trammels of custom, so that it shall not interpose any obstacles of professional prejudice to the artistic expression of materials or methods; and, finally, upon



knowing how to produce interesting work without an evident straining for effect.

The difficulty of conveying to the laity in words, without graphic illustrations, the characteristics of this interesting architectural situation is noted, and using the apparent difference between grammatical and ungrammatical language, the writer continues :

The opportunities afforded by the West to architecture on the high plane which I have endeavored to describe are mainly commercial. It is in making the wisest use of these that the leading architects of Chicago have achieved their characteristic successes. A ten-story office and bank building, fireproof throughout ; with swift elevators for passengers and freight, a battery of boilers in the deep sub-basement, giving summer heat throughout, and supplying energy for pumps, ventilating fans, and electric dynamos ; equipped like a palace with marbles, bronze and glass ; flooded with light in every part ; with no superfluous weight of steel beam, fire-clay arch, or terra-cotta partition, no unnecessary mass of masonry or column ; the whole structure nicely adjusted to sustain the calculated strains and to bear with equal stress upon every pier of the deep foundations so that no one shall yield more than another as it transfers its accumulated burden to the unstable soil beneath—such a problem does not call for the same sort of architectural inspiration as the building of a vaulted cathedral in the Middle Ages, but, surely, for no less of courage and science, and, in providing for the safe, swift and harmonious adjustment of every part of its complicated organism, for a far wider range of knowledge. The one required a century of deliberate and patient toil to complete it ; the other must be finished, equipped, and occupied in a year of strenuous and carefully ordered labor ; no part of its complex being overlooked, all the details of its manifold functions being provided for in the laying of the first foundation stone, and the whole satisfying the eye as a work of art as well as a work of convenience and strength. Whether one compares a modern building of this sort with a cathedral of the first class, with one of the imperial baths or villas of Rome, or with the Flavian amphitheater itself, it must hold equal rank as a production of human genius and energy, not only in the skillful economy of its structure and in its defiance of fire and the other vicissitudes of time, but as a work of fine art developed among practical considerations which seem fundamentally opposed to expressions of architectural beauty. \* \* \*

When a mighty political leader was required to carry our country through the mortal perils of the civil war, a new man, modeled on a new plan out of

"Sweet clay from the breast  
Of the unexhausted West,"

was raised for this heroic service. I am tempted to believe that we may look to the same virgin and prolific source for the spirit which may give us, in due time, a national art. This would be logical, and, if I do not read too hopefully the signs of the times, the fulfillment is not far removed.

After thus prophesying the almost immediate dawn of a national style with the great minds that will outline if not produce it already upon the stage and before the people, Mr. Van Brunt calls attention to the large number of students who have been taught the theory in the architectural schools and the practice of architecture in the principal offices, and shows how the combination of theory and practice will make an enlarged vocabulary, a purified rendition with no servile adherence to tradition, an intelligent use of all that has been done in the carrying out of present problems. Paying a legitimate tribute to the builders, who, coming before the architects, "have shown themselves very sensitive to good impulses, playing no inconsiderable part in the great movement of reform," he continues :

The attitude of the West toward architecture, as distinguished from that of the more cultivated parts of the East, may, I think, best be illustrated by the fact that a graduate of the best schools and practice of the East, who, finding himself in one of the rapidly growing western cities, should insist on being scholastic, and should confine himself to the correct use of strictly classic or medieval motifs, would soon have no opportunities for the exercise of his proclivities ; because, in the first place, he would not be understood, and because, in the second, he could not affect a reconciliation between his academical convictions and the modern methods of structure which he is compelled to adopt, at whatever cost of purity of style. Indeed, his most anxious study must be bestowed on the structural part of the problem. If the artistic is one part, the structural is nine parts, of his endeavor. The question which must preoccupy his mind is how he can meet the practical conditions with the greatest economy of material and labor ; how he may adjust the dimensions, forms and connections of every girder, beam, column pier and other parts of his structure, so that each shall be adapted to the service which it has to perform, with no superfluity of weight and strength on the one hand, and so that, on the other, all considerations of stability shall be duly provided for within the limit of safety. His inventive zeal must be constantly on the alert to improve on the known methods, for there are none which are not subject to improvement more or less fundamental. Fireproof structure, in especial, makes a never-ceasing demand upon his resources. An envelope of fire-clay, porous terra-cotta, plaster, or some other material impervious to fiercest heat must cover every piece of structural iron or wood. There must be no brute masses of material, such as formed the basis of Roman structure. None of these devices and methods were dreamed of when the old masters of architecture perfected their forms and proportions ; so that the decoration or artistic expression of this complicated and in each case, to a certain

extent, unprecedented organism, and the conversion of it into an object of architecture, as contrasted with one of engineering, must demand of the architect such a freedom from academical restraint, such a command of the resources of design, as to make his task at once inspiring and perilous. Under these conditions, error is far easier than success ; the grooves of custom, if indolently followed, will sooner or later lead him astray from the opportunities of original expression which are lying in wait for his use. The silent growth of the building on the drawing-boards must be attended by a constant strain of doubt and anxiety. The spirit of a recognized historical style must be followed, in any case, but these new practical conditions of construction and service compel him to various and perplexing degrees of divergence from the consecrated types. To meet these difficult emergencies with adequate spirit, he must possess the thorough knowledge of the scholar, the exact training of the engineer, the enthusiastic zeal and inventive courage of the artist, and the prompt decision of the man of business. The stimulus of enterprise and the incitements of emulation are in the air which he breathes. The qualities which I have named have certainly been exhibited in some of the best buildings of the West to a degree and in a manner which distinctly differentiate them from any contemporary work of the Old World, which challenge the best endeavors of the East to emulate them, and are already giving cheerful evidence of the establishment of a vigorous architecture characteristic of the West.

Making marked reference to the change that has taken place in the architects' interest in the current literature of the profession during the past five years, the writer says :

We are too near to these developments to judge of them without prejudice, but it is certainly true that the architectural publications of the Old World which illustrate the current work of our era in that quarter have ceased to have that same degree of interest with and authority over the profession which they exercised three or four years ago. Previous to that time all the movements of the modern schools in Europe, all the changing fashions of design, and all the characteristic revivals of England in especial were marked and closely followed in our own country. Now, our own publications, setting forth our own achievements, are studied with equal if not greater interest. They certainly show that, in fundamental respects, we have broken loose from the old bondage, and are entering upon developments of style which seem to be actuated by our own local conditions. \* \*

I do not mean to assert that, even in some of the most successful examples of new work in the West, there are not evidences of crudeness and caprice as well as the usual sophistications apt to result from high training in art, though I might name a dozen characteristic buildings in Chicago and some of the larger cities of the West which combine extreme boldness and ingenuity of design with scholarly reserve and refinement. But, on the whole, the errors seem to me rather errors of force than of weakness ; they are such as we are accustomed to see in the earlier expressions of every healthy and vigorous style which proved to possess the elements of life and the capacity for a long career. I certainly can assert that none of the work which, by happy instinct, commends itself to builders and is copied and travestied with various degrees of success, according to the degree of education in the practitioners, is characterized by that fastidiousness and elegant dilettanteism which belong to styles which have said all that they have to say, and have lost their reproductive power.

I think I can discern in this architecture of promise just such points of difference from the more finished, elegant and scholarly contemporaneous work of Boston and New York as should grow naturally out of the peculiarities of western life. The best eastern architects frequently have some practice in the West, and have set up in Chicago, St. Louis, Kansas City, Omaha, Denver, San Francisco, and elsewhere examples of refined work of high artistic quality, full of inspiration and suggestiveness to local practice. All of them are doing good missionary work, putting out of countenance the buildings of coarse and florid pretense and cheap ostentation about them, and rendering more and more improbable the baleful repetition of them in the future. But by far the most effective missionary work in the West is done by the few structures which have risen "like an exhalation" from its own spirit.

It is difficult to specify in words the details or characteristics of composition which constitute this difference between the works of the East and the West.

In the latter, however, one can certainly detect a greater freedom from the restraints of the European schools. Qualities of material and the nature of the peculiar constructive methods evolved by practical experience are allowed to appear in the decorative scheme to an extent which, I fancy, the conservatism of the East has not encouraged. I have seen western work wherein the capacities of terra-cotta, for instance, have been recognized in the architectural design with a boldness and ingenuity, and a resultant success, which the East has not yet equaled. It is properly treated like a part of the face-brick structure, and the terra-cotta forms are not merely substituted for stone forms without change, as is customary in the East. Ornaments are contrived for the baked molded clay suited to its capacities and without regard to precedents in stone, and they are built into the brickwork in a manner that shows that they are made of the same material. The same independence of the conventionality which keeps architecture in safe but unprogressive and comparatively uninteresting grooves may be seen in the decorative treatment of metal, both on the inside and the outside of the best buildings, and its fireproof envelope is treated often with a distinction which is at once bold and felicitous. The diminished importance of the exterior cornice, in cases where that member has lost its characteristic function as a gutter, is frequently accepted in the design, and its form is changed



to that of a mere wall coping. Buildings of ten or twelve stories are treated with a different expression from that made conventional by buildings of four or five stories, and the usual procrustean processes are not admitted. No accepted formulas are permitted to interfere with the primary necessity of abundant interior light. The first consideration is that windows shall be large enough and frequent enough for this exacting service, without regard to any studio predilections, furnished by the noble wall surfaces of Italian palaces and medieval monasteries, or by any of the buttressed or pilastered symmetries of the Old World. There is no attempt to avoid the enormous difficulty forced by the requirements of modern shop fronts, and by the priceless invention through which they can be occupied with vast single sheets of polished plate glass set under girders of iron and steel—a condition important enough in itself to set at defiance nearly all the precepts of all the academies, and, if frankly accepted by the architect, to create, perhaps, out of this nettle, the flower of a new art. It is the disposition to meet these unavoidable and increasing obstacles of structure and practice with hospitality instead of hostility, and the ability to provide for them in a manner at once fitting and distinguished, that mark the work of the best trained architects of the West.

If the attitude of the government of the United States in regard to its public buildings were one of fostering care, as is the case with all other civilized nations, instead of crass indifference, we should look to these for examples of the most characteristic and advanced monumental work. The profession of architecture is not recognized by the general government, and for many years it has petitioned in vain for employment upon work which should be the greatest prizes of the profession and the most representative of our highest art.

Continuing, the writer makes a fair estimate of the capabilities for producing, and the restrictions placed upon the free action of the supervising architect under the present conditions of that office, and notes the absolute lack of influence the government and state public buildings have upon architectural development, the advance being attributed entirely to the people, never to the state. His estimate is absolutely fair and remarkably concise and accurate.

The buildings of the general government, and those of the states, counties and cities, are usually well constructed and frequently quite correct in the academic sense, though the vernacular has expressed in them some of its most vicious fancies; but foreigners seek in vain among them for an exposition of national character. In Chicago, where one might expect at least to find a type of the energy and sound common sense of the people, the county, city, and national buildings are monuments not only of civic corruption and barbaric extravagance, but of a total eclipse of art. But alongside of them are private structures, erected with judicious economy of means and a lavish expenditure of well-directed study, betraying at all points the spirit which has made Chicago, and surpassing in ingenuity and felicity of design any other commercial buildings in the world.

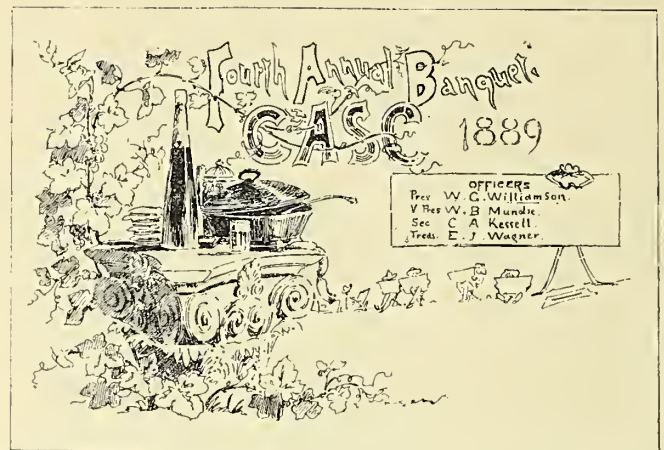
To name names is a guaranty of good faith, but at the same time it commits the writer of an essay, intended to be very general in its statements, to a certain definiteness which subjects him to the danger of serious omissions. It is obviously impossible to make an exhaustive list of the men and works most potent in the national transition which I have endeavored to describe. But I venture to think that my argument will be strengthened as well as illustrated by distinct reference to the Rookery office building, the Phenix, the Insurance Exchange, the Art Institute, and other buildings in Chicago, by Burnham & Root, of that city, who also built the beautiful Board of Trade Building and others in Kansas City; to several of the best theaters of Chicago, notably to the new Auditorium Building, which promises to be one of the most scientifically constructed and perhaps the best appointed large hall in existence, by Adler & Sullivan, of that city; to the Union Club, the Chicago Opera House, the Owings Building, and many fine dwellings, by Cobb & Frost, also of Chicago; to certain excellent ecclesiastical and domestic work by Burling & Whitehouse, of the same city; to some miscellaneous work of high merit by W. L. B. Jenney,\* Edbrooke & Burnham, Holabird & Roche, and other young men who promise to become distinguished in the active work of reform. I cannot refrain from referring also to Buffington's work in Minneapolis, where the transition is receiving some of its most notable impulses.

I do not believe that there are as yet a dozen men really conspicuous for a capacity to express their art in those indigenous terms which take root and fructify in the great West. But the work to be done is so great and the field so vast that, if these were the only effective missionaries of art in the West, we might well despair of seeing the establishment and confirmation of a national art there within the century. Fortunately, they are closely followed by a crowd of trained workers, earnest and honest, doing yeoman's service in the great towns; all of them tending, I think, to unity of effort in the right direction. If they can be held together long enough by the influence of powerful examples, the result is assured.

Mr. Van Brunt closes this remarkable and scholarly article with a fitting tribute to the influence Mr. Richardson exercised upon American architectural style, his work being the greatest in influence of any one man of the century, yet stating that any architecture deserving of the name must be compounded of too many elements to be the work of any one man or set of men, however illustrious, emanating by slow and indistinguishable processes from the essential spirit of the times.

\*Evidently a typographical error, for Mr. Van Brunt cannot be ignorant of the fact that Mr. Jenney is one of the oldest practitioners, as well as most scholarly and distinguished, among Chicago architects. A semicolon and the word "to" after his name would be more correct.—EDITOR.

## The Chicago Architectural Sketch Club.



THE annual exhibit of club drawings and the banquet which the club and its friends enjoy once a year was given at the club rooms in the Art Institute Building on Monday evening, November 18. The visitors present were: J. G. McCarthy, J. Howenstein, W. L. B. Jenney, F. Wagner, Lorado Taft, J. W. Root, J. K. Allen, Oliver Sollitt, N. H. Carpenter, D. G. Phimister, W. A. Morse, D. V. Purington, A. Dawson, S. A. Treat, James John.

The members present were: H. Helmkamp, F. H. Colpoyes, A. W. Hompe, T. T. Holyoke, S. A. Troast, A. C. Berry, George Beaumont, O. C. Christian, R. A. Dennell, Oscar Enders, T. O. Fraenkel, R. C. McLean, W. R. Gibb, A. Heun, S. H. Heinz, C. A. Kessell, F. L. Linden, F. L. Lively, J. A. Miller, Paul Muller, W. B. Mundie, R. F. Sollitt, R. E. Schmidt, G. A. Schoenberg, C. B. Schaefer, C. W. Trowbridge, Morton, Richard Wood, W. G. Williamson, C. E. Boulwood, E. J. Wagner, Robt. B. Williamson, J. C. Williamson, H. C. Troast, E. H. Seeman, A. Y. Robertson, F. Parmelee, W. E. Kleinpell, G. A. Gurd, O. A. Schye, Julius Beeckman.

The club rooms were decked in gala array. The newly frescoed walls, the work of Mr. Linden, with the blending of gray and lavender tints, formed a fitting background for the club sketches in watercolor and sepia that were hung on every side. In the assembly hall the effect was superb. Above the president's rostrum a wash drawing of the national capitol was draped with the stars and stripes, and in front of this was placed the piano, festooned with flowers. The tables were arranged along either side of the hall, and at the lower end seats were reserved for the president and guests. These were decorated with vases of red and yellow roses. The entire arrangement was creditable to the taste of the club members.

The usual happy flow of spirits characterized this, the club's fourth annual gathering. The club members and guests assembled around what was in this case truly a festive board, and the retiring president, W. G. Williamson, made the following remarks:

### PRESIDENT WILLIAMSON'S ADDRESS.

GENTLEMEN,—I welcome you as guests of the Chicago Architectural Sketch Club. It is usual on such an occasion as this to expect a rather lengthy address from the president, but I have no disposition to weary you and those who know me, will say that I have not the ability. However, I will try to "say my little say" as concisely as possible.

I take great pleasure in handing over the reins of government to worthy hands and asking a hearty coöperation in the work of the club for the ensuing year, that we may well be called the best sketch club in the country, and deserving of the honors that have been bestowed upon us individually and collectively.

We cannot pass over the gift of Mr. Robert Clark without comment, such recognition of the worthiness of the club must be encouraged and acknowledged in the manner appropriate, namely, by entrance into the competitions outlined by the various committees.

Also to Mr. Phimister thanks of appreciation should be extended.

This is a chance to do a little advertising for the club. Gentlemen, I crave your attention for a moment. Some months ago the Chicago Architectural Sketch Club elected to admit worthy men of artistic talent as associate members, to be known as sustaining members, with yearly dues of \$10.

We are trying to do as well as we know how and improve ourselves, and you will all see how we can do it when Mr. Smiley lays something before us.

There are still plenty of opportunities to improve this club if the draftsman of Chicago would only interest themselves in our aims and work. It seems strange that the American draftsmen do not have the ambition of our brothers across the sea for medal honors, wishing for nothing but hard dollars, and nothing that a string can be put through.

The good fellowship that exists among those attending our colleges should be carried among draftsmen, then see what fine clubs might be organized in our large cities. These clubs would be in lieu of schools. One cannot fail to recognize the usefulness of comparison—comparison in competition, comparison in business ability, that would assist them to successful practice.

We have many friends that have assisted us, but above all, our financial success is due to our treasurer, Mr. Wagner.

We have contributed a large number of drawings for the Cincinnati Sketch Club exhibit, leaving for ourselves a few to which I respectfully call your attention.

The discussion of the excellent menu was interrupted very pleasantly by the president who announced the toast, "Individuality in Architectural Design," which was responded to by Architect John W. Root.

Mr. Root said: Architects are nothing if not critical, and while it may be said of us as Louis XIV said in regard to no man being a hero to his own valet, I would like to ask you why you do not strive to do something we do not do and stamp it with your own individuality. You see when we started we did not have the advantage of such preceptors as you have (laughter), and, speaking as architects and draftsmen, does it not sometimes occur to you how all our best designs are stolen by some of the rest of us. A glance around these walls shows that you make lots of pretty things but you are not "fly"



in your grammar, you are not "up" in your technique. Take, for instance, a trivial matter. How did the Greeks attain their perfection and accuracy in the use of particular forms? It was by their close attention to nature. I think that perhaps the trouble with all of us is that we think that which is original is permanent while it is ephemeral, and alas! you can't, as with your coat, throw the house you build away if it does not turn out as comfortable and slightly as you intended it should. Richardson's work was broad and strong, but it was finished in its smallest detail and these are the two things that have made his work lasting. He wrought with a technique that he had thoroughly mastered. What is most important is for us to go back to our primers. Notice why moldings of certain forms depended upon certain rhythmic effects of lights and shadows, for instance; take a new turn in your search for architectural perfection. Think for yourselves and out of a few good sterling things which you have created show that you have mastered your problem.

The remarks of Mr. Root were followed by a song by the club, "The Jovial Crew," written for the occasion by R. B. Williamson, and the chorus, "When John Root Gets Through, My Boys; When John Root Gets Through," was heartily sung, and the many personal allusions in the verses were complimentary to Mr. Root and other popular friends and members of the club.

The next toast was the "Chicago Builders' and Traders' Exchange," which was responded to by Mr. D. V. Purington, whose remarks were preceded by the health of the Exchange, drank standing. Mr. Purington responded as follows:

MR. CHAIRMAN AND GENTLEMEN,—When your president asked me to respond to "The Builders' and Traders' Exchange" at this banquet I assented at once. I rather relished the idea of addressing a body of artists whose wild freaks of imagination often make sad havoc with our practical ideas of the science of building. It seemed a fine opportunity to institute a comparison between the esthetic imagination and theoretical work of an architect and the practical common sense of the builder.

Without giving the matter very serious thought I had in some way imbibed the idea that an architect was a sort of necessary evil and that the Builders' and Traders' Exchange were really building up this wonderful city, but when I came to study the history of such institutions, and to critically analyze the sentiment to which I was asked to respond, I found that my powers were unequal to the task. I twisted and turned it in every possible light. I searched in vain for any allusion to such an institution in print save its own annual reports. There was no sentiment, no idea, not even the ghost of a theory; all that remained was the cold fact that six hundred men engaged in manufacturing and selling materials and erecting buildings in Chicago had found it wise to band themselves together to unite their interests and as much as possible to work in harmony.

In this country these exchanges are as yet in their infancy and can scarcely be said to have passed the experimental period. Their growth has been phenomenal and is a rare illustration of one-man power. Mr. William H. Sayward, whose intelligence, good judgment and wise enthusiasm are well known, is the acknowledged founder of the Boston Exchange, after which all the others have been modeled. Many mistakes have been made in our exchange, but no one familiar with its workings will deny that it has benefited all interested in building. Its greatest danger lies in its own unwieldy size. Six hundred men from all the different vocations connected with building form an organization difficult to direct or control.

Thus far our progress has been rapid and successful. Under the fostering care of the National Exchange, we hope to continue to prosper. I am more than ever convinced that we are and shall continue to be the servants of the architects, who could dispense with our services much more easily than we with theirs. Originally, the architect was the builder and as his work has developed he has simply given us the details to carry out under his supervision. This is not the time or place to provoke discussion but if all the architects would assume the independent position taken by the prominent ones of Chicago, namely, that their being employed to plan and superintend the erection of a building does not necessarily constitute them the agents of the owner, there would be less friction and greater harmony between architects, builders and material men.

Mr. Chairman, in the club I recognize the future of Chicago architecture; when the Boyingtons, Burnhams, Jenneys, Roots and others now eminent in the profession shall have passed away their places will be filled from the ranks of this club. Happy will it be for them, happy for Chicago and happy for the profession they have chosen if the record of their lives and services shall be as creditable as is that of the present generation.

I can conceive of no higher compliment to Chicago than the remark of a very intelligent and observing gentleman from New England, who, after studying our institutions with much care, summed up his observations by the remark, "Chicago may well be proud of her judges and her architects."

The club then sang "The Boys of the C. A. S. C.," another production from the poetic pen of "Williamson's brother."

Architect W. L. B. Jenney responded to the toast, "The World's Fair." Of course, according to the speaker, the fair will be held in Chicago, and be in its extent, architectural features and attendance, the greatest success the world has ever seen. In the different designs for some phenomenal construction, from a tower to a gigantic jumping jack, that would "jump" people from the seaboard or from Denver, Mr. Jenney saw alarming signs of an epidemic of inflammation of the inventive organs. In the serated circumference of the world's fair stamp he saw an emblem of the "buzz-saw" character of the Chicago world's fair idea, and the danger to anyone who might "monkey" with it.

Mr. Lorado Taft, the sculptor, responded to the toast, "The Relation of Sculpture to Architecture," in a well chosen and comprehensive address. The first architect that Mr. Taft ever met was Professor N. Clifford Ricker, of Champaign University, and spoke highly of that gentleman's architectural learning and artistic instincts.

Mr. George Beaumont, at the request of the president, sang "She Comes in all Her Loveliness." Mr. Beaumont has a rich, mellow, and, for a man, most sympathetic voice, and his singing is always appreciated by the club.

"A Contractor's Knowledge of Architecture" was the toast responded to by that brilliant member of the Chicago Builders' Exchange, Mr. J. G. McCarthy. The text spoken to was the lines from Longfellow:

"In the elder days of art,  
Builders wrought with greatest care  
Each minute and unseen part;  
For the gods see everywhere."

Mr. McCarthy thought that a well-organized god might be a valuable adjunct to every architect's office.

Mr. D. G. Phimister gave a recitation, after which the toast "The Architect's Lot, Past and Present," was responded to by Mr. Fritz

Wagner, of the North-Western Terra Cotta Company, in a poem which was startling in plot and original in conception to a degree that "brought down the house." The plot was Dantean in flavor, and opened in heaven, the devil complaining thus:

"You are well aware that sheol  
Is now getting rather crowded,  
And the roasting apparatus  
Never was in perfect shape.  
It will do for rare or medium,  
But for well done and for crisp,  
There is hardly left one kettle  
That resists sufficient heat."

His satanic majesty does not seem to get the advice he wished, and leaving in a rage, thus continues:

"Down on earth I knew a fellow  
Whom they call an architect.  
He is great on all inventions,  
He will help me out, I hope.  
Then he changed his form and habit,  
And quite modestly appeared  
At the door of Cenna Vecchio,  
And explained to him his case.

Cenna was a humble artist,  
Who in study passed his life,  
Dwelt far from the real  
In the quiet realm of art."

It seems that from Vecchio he obtained some valuable hints regarding the manufacture of terra-cotta, and the cooking apparatus was at last a success. The curse which the presumption of Vecchio drew down upon himself for this is, perhaps, intended to explain the origin of many of the ills that the architect is heir to.

"Cursed be he for all times,  
In his soul the burning longing  
For the highest shall remain.  
Ever searching shall he wander  
Through the world, but search in vain.  
And from numberless vexations  
He, surrounded, shall despair.  
Thousand troubles he encounter  
To detract him from his aim.  
Party walls, specifications,  
Building permits, iron beams,  
Dynamoes and ventilators,  
Elevators, smoky flues,  
Careless masons, bad contractors,  
Cranky owners, reckless men,  
Lien laws, city ordinances,  
Plumbing fixtures, poor foundation,  
Lady clients, competitions,  
Shall absorb his precious time,  
And whenever inspiration  
In his soul's aspiring throng  
Has approached real beauty,  
There shall ever be a miser  
Who, with mourning voice, regret  
That in spite of all designing  
He could hardly pay the price,  
And to keep within the limits  
He must change and cut it down.  
Thus his lordship. And to finish,  
I beg simply to remark,  
If in spite of all vexation  
On your duties' future path  
You should win the precious laurel,  
It will be through perseverance  
And devotion of your heart,  
For your life is narrow bounded—  
Ever-endless is your art."

Mr. James John, secretary of the Builders' Exchange, was toasted, and responded with some pertinent remarks.

"The Architectural Press" was responded to by Mr. R. C. McLean. Mr. C. B. Schaefer rendered a piano solo, and Mr. W. B. Mundie, the president-elect, made appropriate remarks regarding his predecessor, and speaking of the future, said he would ever encourage advancement and a progressive active membership. Paying dues and attending meetings did not constitute the full duty of members. The syllabus for the coming year would be arranged by the club, and each competition arranged for must be entered into by every member. He spoke in favor of simple subjects, and few lines in their rendition. In regard to sketching from nature, it was a mistaken notion that the club was a school. It had been in its purposes and work rather a recreative organization, but in future the usefulness of the club would be extended if the truss constructor and the picture maker could join hands to their mutual benefit.

The evening ended happily with many songs and stories by the club members.

### Personal.

H. W. CULBERTSON, a young man of exceptional ability in the line of newspaper work, has started a monthly journal, entitled *Domestic Engineering*, devoted to plumbing, lighting, heating and ventilating, with offices in the Rookery Building, Chicago. Mr. Culbertson is well known and liked by the architects and draftsmen of Chicago, and in the line of work which he has adopted, he has been a reliable and painstaking journalist for many years. The first number of his journal is all that could be expected, and it is sure to grow into a valuable exponent of sanitary affairs.

THE *Engineering and Building Record*, of New York, says in its issue of October 19, 1889: "The *Engineering and Building Record* appears in a colored cover this week, and is enlarged by the four pages which the cover makes. The improvement has been under consideration for a considerable time, and as the current volume closes with the last issue for November, it seemed best to make it now. The getting of a cover which should at once be distinctive in color and meet all the other requirements was no easy task, and the reader is left to judge of the result finally reached."



## The Cincinnati Architectural Sketch Club.



THE reception that marked the opening of the national exhibit of architectural drawings in Pike's Opera House, on the evening of November 19, was attended by several hundred citizens of Cincinnati, as well as the visiting architects. The reception was entirely informal, and the evening was spent in conversation upon subjects suggested by the superb collection of drawings, and inspecting and criticising the many masterpieces of the draftsman's pen and brush. About 9 o'clock, Mr. George W. Rapp called the assembly to such order as the circumstances would permit, and introduced Mr. Hunt, of Cincinnati, who, in well chosen words, welcomed the architects to the city.

Mr. Rapp then introduced Mr. John W. Root, of Chicago, who, after thanking Mr. Hunt for his cordial words of welcome to the visiting architects, made some remarks, in which he expressed his pleasure at seeing so fine a display of professional delineation as displayed upon the walls. Mr. Root, after stating that he supposed that there was considerable curiosity in the minds of those present regarding what the convention proposed doing, and that he would enlighten them by outlining what might be termed a c (ode), read the following:

## CODE FOR THE GUIDANCE OF PERSONS PRACTICING THE PROFESSION OF ARCHITECTURE IN THE UNITED STATES.

This code is promulgated primarily for the instruction of members of the American Association of Architects; but since this body, with its large membership and influence, has become so largely representative of the continent, it is hoped that the code will be generally followed.

The code divides itself into three general sections, each of which embraces three articles. Section I relates to conditions of membership; Section II to rules of practice; and Section III to relations between members.

Under the first section are the following articles: 1, Definition of the term "Architect;" 2, Form of application for membership to the Institute; 3, Form of election of the applicant.

The second section embraces the following three articles: 1, The relations of the architect to his clients; 2, His relation to his contractors; 3, His relation to his draftsman.

Under the third section come articles touching: 1, Competitions; 2, Unconscious assimilation; 3, Confraternity.

## SECTION I.

An architect is a person who is either addicted to the habitual or occasional making of plans and designs for a house or houses; or, who pays at regular or irregular intervals a draftsman or draftsmen to make for him the said plans and designs. To explain:

Taking such houses as we often see, one would be enough to make its designer (the architect) wish to go off and die; or, again, the architect may make many designs and plans for one house, or he may also build many houses from one design (of course he does not, but he might).

To return to this article. But in the latter case (the employment of draftsmen, etc.) it must be generally known that the architect can read and write; can spell words of one syllable; that he does not say "cornish" and "archetrieve" (for this is not right). He must also know which is the business end of a pair of dividers and of a bow compass. He must not rub out pencil marks with a wet finger, but must use india rubber.

ART. 2. The form of application for membership shall be as follows:

I (John Jones), a practicing architect, hereby apply for membership in the American Institute of Architects. I refer to the contractors who have executed work under my charge, whose names are herewith given, and whose sworn certificates of my general good intent are inclosed. I also inclose perspective drawings of three buildings which I designed.

ART. 3. Upon receipt of this application the board of directors shall inquire, first, if he knows or has given his true name; second, how often he has been "seen" by the contractors mentioned, and what is their experience as to the cash value of his certificates. They shall carefully examine the perspective drawings submitted. If the designs prove to be made from a building commonly accredited to some other architect, then, if they fail to find, in all or one of the designs

submitted, any variation from such original, they shall request the applicant in writing to point out to the board what variations there may be, and, if any variations do exist, they shall by ballot elect the applicant to full membership.

## SECTION II.—RULES OF PRACTICE.

ARTICLE I.—*Relations of Architects to Clients.*—It is the architect's duty to suitably impress his client. He must therefore tell what he has done; and if within five years of the time he has been employed as draftsman for another architect, he should claim as his own all the best work of his late employer. He should advise his client that nothing but the latest style of architecture should be used in building his house. He should also congratulate the client that he did not go to architects like Jones or Smith, who pretend to design houses in the latest style, but whose designs are marked at once by ignorance, vulgarity and utter impracticability. He should lament the decadence in the present of that refinement in design which to him is so essential. He should promise his client that he will himself visit the house twice per day during its construction, and will employ, as a clerk of the works, a competent superintendent at a salary of \$3,000 per annum. He must give him a round tower on the corner, an inglenook, a stair balcony and a copper bay.

ART. 2.—*As to Contractors.*—Be firm and severe with them. Remember, however, what a blighting thing it is to lose faith in the inherent goodness of human nature. Ask the contractor, one week, if on the preceding week he fully complied with a clause of the specifications touching a part of the work now concealed. If he says "yes," believe him; if he says "no," reprove him gently, and ask if the omission was not more because of forgetfulness than malice. Never accept money nor commissions from a contractor unless you know him to be perfectly honest and disinterested, or unless he assures you that he offers the money because he loves you, and not with the desire to take advantage of you.

ART. 3.—*As to Draftsmen.*—Be friendly even jocose with him, and remember that if he have a truly artistic nature he will be above care for vulgar questions of more or less salary, or its more or less prompt payment. Make him see all the fussy old-womanish clients who bore you to death. Give him a "rough sketch," which looks to him like an incoherent freak of nature, and when he has "rendered" it, say you can't understand why he cannot catch the spirit of the original, and that you don't know where the profession is going to, on account of the ignorance of the draftsmen. Give him work enough for three days and tell him you want it next afternoon. Five years after he has left your office and has made a brilliant success for himself, always refer to him as a "pupil of mine."

## SECTION III.—RELATION BETWEEN MEMBERS.

ARTICLE I.—*Competitions.*—When you compete, compete, remembering that all's fair in love and war. The essence of a competition should be commissions, and your charges for your services, should your designs be accepted, should always be plainly set forth. Always see the persons on the committee having the competition in charge, especially about the time plans are opened. Be careful not to overestimate the cost of the proposed building.

ART. 2.—*Assimilation is All Right if Unconscious.*—When an architect has designed and erected a building the design becomes public property. And, as it rarely happens that a design is so good that it cannot be bettered, it is right that its betterment should be undertaken. If the original designer weighed three hundred pounds (intellectually) and his follower a pound or so less, so much more reason for the attempted improvement, since the effort will throw upon the general subject of "strains" a most interesting light.

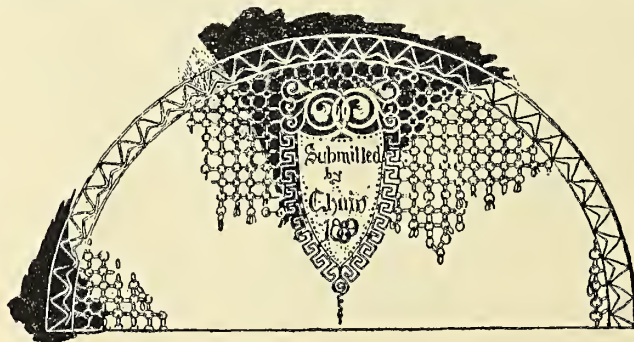
ART. 3.—*Confraternity.*—Love your neighbor as yourself, but bear in mind that architects are rarely neighbors. Always speak well of each other. A pleasant word will always charm; such as "Oh! he does no designing himself, his draftsman do that"; or, "He got that job for two per cent"; or, "Before I'd stoop to such means to get work I'd go shoemaking." Such things warm your own heart and help to keep active all the gentler amenities of the profession.

But brief mention can be here made of this the greatest exhibit of architectural work this country has ever seen. The American Institute of Architects in convention passed a resolution of approbation, and the architects spent hours out of convention in examining the drawings. The hall was draped in flags and arranged with antique furniture, which, with the hanging of the almost one thousand drawings, was in charge of Messrs. Elzner, Heister, Winkleman, Chaney and Moorman, and while ably assisted by President Field and Secretary Zettel, and others, the work is a lasting credit to their taste, and its success some compensation for the two nights, as well as the many days, spent in its accomplishment.

The clubs represented by drawings and sketches were as follows: St. Paul Architectural Club, eleven; Detroit Architectural Club, eleven; Columbus Architectural Sketch Club, sixteen; Rochester Architectural Sketch Club, forty-six; Chicago Architectural Sketch Club, one hundred and forty; the T Square Club, Philadelphia, fourteen; Boston Architectural Club, thirty-two; the P. C. A. I. A. 2 T Square Club, nine; Cincinnati Architectural Club, fifty-four.

The largest number from any one club was from that of Chicago, and while almost their entire exhibit seemed to be water-color sketches, a close inspection showed that over one-half were architectural subjects. A feature of the exhibit was the very handsomely printed catalogue, the frontispiece of a supplementary issue of which heads this article.

A resolution complimentary to the club was passed by the Institute convention, Mr. Alfred Stone, the mover, stating that he introduced this as a vote of thanks to the club who had decorated the opera house so beautifully and had been so successful in obtaining the choicest collection of sketches and architectural drawings that probably had ever been got together in this country, and it seemed to him eminently proper that the convention should take some official notice of it. The vote upon the resolution was unanimous.



Semicircular Wrought Iron Grille  
By Zettel: Secy C.A.C.



A Toronto Competition.

THE award of the plans for the Confederation Life Insurance Company's new building, says the *Toronto Globe*, has been made to Messrs. Knox & Elliott, of this city. The company's prize of \$500 for the best unsuccessful plans was given to Messrs. James & James, of New York; the second prize of \$400 to Mr. James Balfour, A. R. C. A., Hamilton, and the third prize of \$300 to Mr. Alfred Flockton, Montreal. The exhaustive report and recommendations of the referee, Mr. John W. Hopkins, of Montreal, were received by the manager, Mr. J. K. Macdonald, a week ago last Monday. The board of directors met a week ago yesterday and confirmed the findings of Mr. Hopkins in every particular. There were eighteen sets of plans entered in the competition, and the success of Messrs. Knox & Elliott was a surprise to everyone concerned. The members of the firm have an admirable record in Chicago, but only started in business in Toronto a short time ago, and were almost unknown. This stroke will at once put them in the first rank of architects. The firm also put in plans for the new Board of Trade Building, but so little merit was seen in them that they were never in the running. Now, however, in this last competition Mr. Hopkins reports them—and the board sustains him—very distinctly leading the same architects that a few months ago beat them out of sight. The limit of cost for the new building was placed at \$300,000, and Mr. Hopkins figures that the successful plans will cost \$296,300.

The plans show a building in the French Gothic style of architecture. It will be of red sandstone and terra-cotta pressed brick. It will extend from Yonge to Victoria streets, with a frontage of 60 feet on Yonge street and 100 feet on Victoria. It will be five stories high, with a basement on the ground level and a sub-basement underneath, making a total elevation of seven stories. There will be towers at each street corner, and in the center on Richmond street a tower will rise 200 feet. The Yonge street frontage, it is expected, will be devoted to stores, and the company's offices will take up all the remainder of the ground floor.

Efflorescence.

Editors *Inland Architect* :

The vexed question of stopping the exuding of salts upon the face of pressed brick, it appears by recent articles and letters in architectural publications, has arrived at no nearer a satisfactory solution than the airing of so many experiments and failures.

Among these are the dipping of the brick in hot tar except the side to be exposed, placing tar-paper between the pressed brick and the common with which it is backed up, mixing oils and acids in the mortar used in laying them up, and also applying a coat of linseed oil on the face of the bricks after they are set. So far, however, these and other experiments have proved failures.

We all know, chemically, what this white efflorescence is that defaces our buildings and gives pressed brick a bad name, soda, potash and magnesia; and as long as bricks are made from clay submitted to the action of heat, so long will the presence of these acids be found in brick. Submit one side of a brick to moisture, atmospheric action, and varied temperature, and sooner or later these salts or acids will be drawn to the exposed surface. There is, however, according to an English contemporary, a successful and satisfactory remedy. It is an application made on the wall, which, while it leaves the texture of the brick unimpaired, protects it from the action of the atmosphere and weather, and through which the salts cannot penetrate. This new remedy (new to this country) is called "Duresco." The exact analysis of this material is not known but it is claimed that it is a pure silica, which is indestructible, except by hydrofluoric acid. It is probably nothing more than a mixture in certain proportions of finely ground sand and caustic potassa boiled together for a certain length of time. The mixture then diluted with water, and the potassa evaporated by muriatic acid. This leaves a pure soluble silica, which can be reduced to working consistency by the addition of (hot) water, but which, when once evaporated to dryness must remain forever insoluble. Its application is perfectly simple, being made with ordinary distemper brushes like whitewash. A two-coat application insures entire success, while the cost is about the same as lead paint.

Duresco has another use for which it cannot be too highly recommended, and that is for the interior walls and ceilings of hospitals, especially where infectious diseases are treated. Its non-absorbent qualities alone need be considered.

Yours truly, CHARLES H. BEEB.

[The above letter calls attention to an excellent material that has been used in this country to a greater extent than seems to be known to the writer, but the material has such undoubted merit that the letter is published in full.—EDITORS INLAND ARCHITECT.]

ARCHITECT CHARLES H. LEE, formerly of Des Moines, Iowa, is practicing at Denver, with offices at 59 Barth Block. He will be glad to receive trade catalogues, etc., for his library.

Association Notes.

CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

At a recent meeting of the Board of Directors of the Chicago Builders' and Traders' Exchange, the following members of the Exchange were elected delegates and alternates to represent the Exchange at the fourth annual convention of the National Association of Builders to be held in St. Paul, Minnesota, on January 27, 1890 :

Delegates.	Alternates.
D. V. Purington,	E. Earnshaw,
George Tapper,	Walter T. Clark,
W. H. Iliff,	M. Benner,
J. W. Murray,	P. B. Wight,
M. B. Madden,	E. F. Gobel,
Francois Blair,	W. H. Alsip,
James A. Miller,	B. J. Moore,
Robt. Vierling,	Geo. A. Gindele,
H. J. Milligan,	W. O'Brien,
Chas. A. Moses,	A. R. Gray,
Thos. Moulding,	John F. Barney,
Joseph Eastman,	James John.

George C. Prussing, delegate at large.

Mr. Purington was elected chairman of the delegation, and delegates will be duly advised of any meetings that may be called for the purpose of consultation with the delegate at large, or for the purpose of taking such action as may be deemed necessary for the government of the body at the convention.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The annual exhibit of the Chicago Architectural Sketch Club will be given together with an informal reception to friends of members, and all draftsmen not members of the club or the club rooms in the Art Institute Building, Monday evening, December 16, at eight o'clock. A short informal programme and refreshments will be provided. The draftsmen of the city not members of the club are particularly invited to enjoy the club's hospitality. Owing to the absence of most of the club drawings at the National Exhibit at Cincinnati, the exhibit was not complete upon the official date, and this is supplementary to the exhibit made at that time. The following work has been outlined for the year :

SYLLABUS.		
DATE.	SUBJECT.	NAME.
1889.		
Dec. 2.	Lantern Exhibit of Parisian Views.....	E. J. Wagner.
" 16.	Annual Exhibition.	
" 30.	Cuba by Lantern .....	E. J. Wagner.
1890.		
Jan. 13.	Rambles Through New Orleans.....	Arthur Heun.
27.	Open Debate on "Colonial Architecture."	
Feb. 10.	Artistic Metal Work.....	H. C. Frost.
Mch. 10.	Glimpse of a Sculptor's Studio Illustrated.....	Lorado Taft.
" 24.	Water Color Study Applied to Architecture .....	W. G. Williamson.
April 7.	The Factor of Safety .....	D. Adler.
" 14.	Architectural Design and Fireproof Construction.....	John W. Root.
" 21.	Graphic Analysis.....	J. R. Willett.
May 5.	Specifications .....	J. G. McCarthy.
" 19.	Essay.....	Irving K. Pond.
June 2.	Origin of Moldings.....	F. Wagner.
" 16.	The Practice of Architecture.....	D. H. Burnham.
" 30.	Lantern Exhibit .....	Mr. Morse.
July 14.	Sketching and Social Evening.	
" 28.	Drawing From Cast.	
Aug. 11.	Brush Drawing.	
" 25.	Designing in Pencil.	
Sept. 8.	Practical Ironwork .....	Paul Muller.
" 22.	History of Perspective .....	J. Beekmann.
Oct. 6.	Steel in Building Construction .....	W. L. B. Jenney.
" 20.	Interior vs. Exterior.....	O. C. Christian.
Nov. 3.	Annual Business Meeting.	
" 17.	Annual Banquet and Exhibit.	

SUBJECTS FOR COMPETITION.

Jan. 13.	A Village "Smithy." Material and rendering optional.
Feb. 24.	Novelty for the World's Fair.
May 5.	Artist's House by the Sea, with an interior sketch of the studio arrangement. To be rendered in Sepia. The interior sketch may be in brown ink with pen rendering.
June 23.	Litch Gate for a Country Cemetery. Material to be stone and timber; pen and ink.
Aug. 4.	Essay, "Expression in Form." Limited to 900 words.
Sept. 1.	Rendering from Photo in Pen and Ink. Menu Card Design. The "Robert Clark Testimonial" gold and silver medal competition to be announced on August 1, closed on October 1.
Oct. 20.	A prize of any one of the monographs of "American Architecture," by the late H. H. Richardson, will be given for the one standing highest in club competitions for the year.

Every alternate Monday evening will be devoted to drawing, sketching, brushwork and designing.

THE DENVER SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.

The last regular meeting was called to order by President Hittleton, and all regular members and two visitors present. Professor Ihtseng, of Golden, resigned, as he was unable to attend meeting. Mr. Follett resigned the offices of secretary and treasurer, as he is away from the city most of the time. Notice was given that the vacancy would be filled at the next regular meeting.

Mr. Jackson, architect, and now building inspector of Denver, read the larger portion of the new ordinance relating to the construction of buildings. The ordinance has now passed the council and is waiting the passage of the supervisors to become a law. It is quite voluminous and carefully gotten up. Among the main points covered are the division of the city into two fire districts, one covering the business portion of the city and the other the residence portion. Parties must defend their foundations to a depth of 10 feet 6 inches on property lines; foundations for residences must be at least 2 feet 6 inches deep. Ninety days is allowed for the use of one-third of the street in front of property; no business wall in blocks to end in less than 13 feet wall; no wooden posts in business blocks over 20 feet



high : all tenement houses, flats and stores to be provided with scuttle in roof, fastened inside, but not locked. The society indorsed the ordinance and recommended a new ordinance regulating the manufacture and quality of brick, as much poor brick is now being used. Adjourned.

#### BUFFALO ARCHITECTURAL SKETCH CLUB.

The annual meeting of the Buffalo Architectural Sketch Club was held on the evening of November 11, at their new rooms in the American Block. The following officers were elected for the ensuing year: President, W. L. Fuchs; vice-president, U. G. Orr; secretary, John T. Jackson; treasurer, L. A. Schugens.

Several new names which had been proposed were acted upon at this meeting, and their initiation sketches being accepted they were elected members.

The club was never in a more healthy condition than at present; the all-necessary enthusiasm reigns, and the work for the winter has begun with the usual vim of the club. The first competition of the new year will be a country stable, and promises to be one of the most interesting subjects yet given to the club.

#### THE DETROIT ARCHITECTURAL SKETCH CLUB.

The last competition of the Detroit Architectural Sketch Club, for a newel post, hand-rail and balustrade in hardwood, known as the "Scott Competition" (for the reason that Architect John Scott offered prizes to successful competitors), was awarded as follows: Richard Mildner, first; A. Kahn, second and Max Grylls, third.

The next competition will be for a set of hardware for a door, for which Messrs. Hopkins & Dickinson offer cash prizes of \$15, \$10 and \$5.

At the next regular meeting the subject of drainage will be discussed.

#### ARKANSAS SOCIETY OF ENGINEERS, ARCHITECTS AND SURVEYORS.

The third annual meeting of this society was held at Little Rock, November 12 and 13, leading members of the several professions from all parts of the state being present, and many subjects of great interest to those professions in the state were discussed.

A paper on the "Mines and Minerals of Pulaski and Saline Counties" was read by R. D'Ailly; also papers by Messrs. H. G. Martin, on "The Rights, Duties and Responsibilities of Surveyors"; E. C. Buchanan on miscellaneous subjects, and Prof. Jay M. Whitham on "Hydraulic Rams," were listened to with great interest.

A description of a difficult resurvey of a fractional section by Mr. B. S. Wise and the discussion that ensued thereon between him and Messrs. J. A. Martin, H. G. Martin and I. M. Moore, shows the great value of an interchange of ideas and experiences in such matters, not only to the members but to the public in general.

On Wednesday evening Dr. John C. Branner delivered a lecture on "The Formation of our Mountains, Hills and Valleys," to which the society invited the public, which was well attended. At this meeting many new members were admitted, among whom were Mr. H. G. Kelly, principal assistant engineer of St. Louis, Arkansas & Texas Railway; F. S. Ingreasby, assistant engineer of the Arkansas & Northwestern Railway; Mr. Edwin Cook and Mr. Williams, of Pine Bluff; Mr. Dickerson, of Conway; Mr. Dean Adams, superintendent Pulaski Gaslight Company; Mr. J. W. Bixby, superintendent of the Arkansas Water Company, and Mr. W. R. Smith, of Arkadelphia.

It may not be out of place to give a short extract from the constitution of the society, showing how the membership is open to all interested in science, as well as to the practicing engineer, architect or surveyor. The clause on associate members reads:

An associate shall be the manager of a railroad, canal or other public work; a geologist, chemist or mathematician; a proprietor or manager of a mine or metallurgical works; a builder or manufacturer; or one who, from his scientific acquirements or practical experience, has attained eminence in his special pursuit, qualifying him to cooperate with the members of this society in the advancement of professional knowledge; but shall not himself be practicing as an engineer, architect or surveyor.

The Hon. J. K. Jones, United States senator, was elected honorary member in return for the great interest he had manifested in the society.

This most successful meeting was brought to an appropriate close by a grand reception and banquet, which was tendered by the local committee with the kind assistance of the citizens of Little Rock, to the visiting members.

The officers elected for the ensuing year are W. P. Homan, president; Fred J. H. Rickon, corresponding secretary; Frank W. Gibb, recording secretary, and Theodore Hartman, treasurer; the first three forming the board of directors.

#### NORTHWESTERN ASSOCIATION OF MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

The annual meeting and banquet of the Northwestern Association of the Massachusetts Institute of Technology was held at the University Club, Chicago, December 7. About fifty members were present, Frederick Greely, president of the association for the last year, acting as toastmaster.

Among the invited guests were James L. Houghtaling of the Sheffield Scientific School; George Gibbs, mechanical engineer of the Chicago, Milwaukee & St. Paul railway, a graduate of the Stevens Institute of Hoboken, New Jersey, and Dr. H. H. Belfield, director of the Chicago Manual Training School and a graduate of the Iowa State University. Prof. Charles R. Cross, Thayer Professor of Physics, of Boston, was present as the representative of the faculty. Professor Cross called attention to the fact that the school, which was organized in 1864, and graduated its first class of fourteen members in

1868, had seventy-five men in its graduating class of 1889, and 262 in its present class of 1893.

A paper on the "Applications of Electricity" was read by L. A. Ferguson, of the class of 1888, and one on "Some Notable Chemical Industries," by W. H. Low, of the class of 1886. H. B. Stone, R. H. Pierce and Architect Henry Raeder, of Chicago, responded to toasts.

The following officers were elected for the ensuing year: President, T. W. Robinson, Milwaukee; first vice-president, H. B. Stone, of Chicago; second vice-president, Arthur Winslow, State Geologist of Missouri; secretary and treasurer, Solomon Sturges, of Chicago.

#### ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

The adjourned meeting of the Illinois State Association was held on Monday, December 16, the election of officers held and consolidation of the Local Chapter and the State Association discussed. The officers were reelected and a resolution was passed directing the Executive Committee to confer with the Executive Committee of the Chapter, with full discretionary power, to effect a plan for consolidation which will enable the final work to be done at the next meeting of the Association. The committee was directed to urge the adoption of the State Association constitution and by-laws and that the new organization be called the Illinois Chapter of the American Institute of Architects. The next monthly meeting will be January 20. The full minutes will be given in next issue.

#### Our Illustrations.

Detroit Business University building; Mason & Rice, architects. Depot at Walkerville, Ont.; Mason & Rice, architects, Detroit, Mich.

Melrose Hall, Oak Lane, Pa.; Harrison Albright, architect, Philadelphia.

Residence for Mr. R. W. Hinds, Denver, Colo.; A. M. Stuckert, architect.

Church of the Redeemer, South Park, Chicago; Alfred Smith, architect.

Epworth M. E. Church, Edgewater, Chicago, F. B. Townsend, architect.

Residence for Grosse Pointe, Mich.; Mason & Rice, architects, Detroit, Mich.

Residence of Mr. H. W. Sibley, Rochester, N. Y.; James G. Cutler, architect.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence of Mr. Frank M. Elliott, Evanston, Ill.; J. K. Cady, architect, Chicago.

Church of Society of St. Mary, Kansas City, Mo.; Halsey Wood, architect, Newark, N. J.

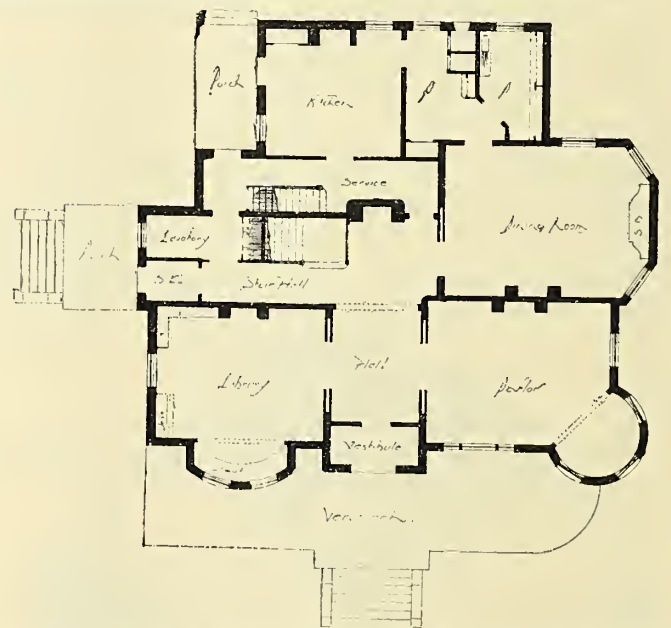
New England building, Kansas City, Mo.; Bradley, Winslow & Wetherell, architects, Boston.

Reception Hall in residence of Mr. A. T. Hubbard, Cleveland, Ohio; C. F. Schweinfurth, architect.

The New York Life Insurance Company's building, Kansas City, Mo.; McKim, Mead & White, architects, New York.

Residence of Mr. William H. Gratwick, Buffalo, N. Y.; H. H. Richardson, architect. It was the last commission received by Richardson, and was finished under the supervision of Shepley, Rutan & Coolidge, architects, Boston.

Residence of Mr. George W. Reed, Pittsburgh, Pa.; George S. Orth, architect. The house is built of gray sandstone, with slate roof, and is finished inside in hardwoods and varnished pine. The library, dining room and parlor furniture was made from special designs prepared by the architect. Below is principal floor plan.



Residence for Mr. R. N. Clark, Pittsburgh, Pa.; George S. Orth, architect. Built of a warm buffstone up to the second floor, above which it is covered with shingles dipped in Cabot's stain. The interior is finished in hardwoods in the first story and in varnished pine above.



### New Publications.

*The California Architect and Building News* comes to us for the month of September under new auspices. Being the official organ of the San Francisco Chapter of the A. I. A., the architects were not satisfied with its character, and so have taken hold of the helm themselves. The result is apparent in the enlargement and decided improvement of the letterpress matter, and it now gives evidence that it will be hereafter worthy of an enviable place in architectural journalism. We wish the new management all the success aspired for.

**CARPENTERS' AND BUILDERS' ASSISTANT AND WOODWORKERS' GUIDE.** By Lucius D. Gould. Sixth revised edition. New York, William T. Comstock. Price \$2.50.

This work, as its title indicates, is of more value to the builder than to the architect, being intended to instruct workmen in the theory and art of construction; an object for which comparatively little has been written, which has proved of much practical value. Among other things it contains rules for springing and bending moldings; mitring circular moldings, and planes oblique to the base at any point; a table showing the length of brace when the run is given, and *vice versa*; a system of stair building; a number of steel square problems; and a considerable amount of tabulated data and miscellaneous information—all of which is clearly and concisely written and illustrated by such plates as the author considered necessary for their explanation. While, perhaps, some of the things omitted are of as great importance as those stated, the work was probably not designed to be a complete book of reference, but a collection of rules and data for the solution of daily recurring problems met with by a builder, to whom the work will prove extremely useful.

**ACADEMY ARCHITECTURE AND ANNUAL ARCHITECTURAL REVIEW,** 1889. Edited by Alexander Koch and C. W. English, architects. William Mueller, 695 Broadway, publisher of American edition. Price \$2.50.

The scope and purpose of this periodical are clearly indicated by the title page, which announces its contents as, first, "A selection of the most prominent architectural drawings hung at the Royal Academy Exhibition," and, second, "A review of interesting architectural subjects carried out or designed during the last few years." Of the hundred pages of this first issue about half are devoted to illustrations of the work of the immediate past,—the greater portion English, but with a slight sprinkling of recent Austrian work. The other half is devoted to a reproduction of drawings and water colors exhibited at the Academy, and takes a much wider sweep, including works old and new, at home and abroad. In general the workmanship on the plates is excellent; there is a good index to names of architects and artists, and the selection of subjects is varied and interesting, representing exteriors, interiors and sculptures. Among the architects represented are Waterhouse, Blomfield, Norman Shaw and other equally well-known names. Among the half-dozen designs by Messrs. Ernest George and Peto are several country houses, extremely happy designs, which invite a comparison with the best of the recent American work in this line. And even though our unlike conditions may not lead us to work in a similar vein in country or city houses, yet there is often more real inspiration to be found in fresh, good work in a different field than in work produced under identical conditions, wherein the very similarity rather tends to promote sameness. The contrast with first-class work for the same purpose under different conditions has rather a tendency to stimulate thought, and sometimes to suggest fresh modes; or, again, to impress us anew with the value of an older form of which we had for a time lost sight. The book is well worth publishing, and will be worth more than its cost to any American architect.

**TREATISE ON MASONRY CONSTRUCTION.** By Ira O. Baker, Professor of Civil Engineering, University of Illinois. New York: John Wiley & Sons.

The author states in his preface that the book in its present form has grown out of notes of his lectures before his classes and that thus it has been written and arranged primarily for engineering and architectural students; that the object has been to develop principles and methods and to give such examples as illustrate them, rather than to accumulate details or to describe individual structures; that no theories have been urged that have not been verified by experiment and experience; that a large part of the matter is new and that no existing work had covered any considerable part of the field. The scope of the book will be seen from a brief survey of the contents. The four main divisions are entitled respectively: materials, preparing and using materials, foundations, masonry structures. Among headings of chapters occur the titles: natural stone, brick, lime and cement, mortar and concrete, stonecutting, stone masonry, brick masonry ordinary foundations, pile foundations, foundations under water, retaining walls, masonry arches, etc. Diagrams, illustrations and tables are numerous and well adapted to their purposes. The style, though somewhat diffuse and easy-going, is usually clear and free from ambiguity. The author's methods are much more satisfactory to the ordinary hurried practitioner than are Rankine's ponderous formulas imbedded in a text bristling with signs and symbols. Doubtless the student and the practitioner have equal occasional need of signs, symbols and formulas; but it is pleasing for the purpose of reference to be able to find facts and results stated in quickly comprehended terms; and this, in general, is true of the work before us. The table of contents, index and lists of plates and tables, and the frequent cross-references in the text especially adapt the book for use as a hand-book for ready reference, and make it useful to the architect as well as the student. In some cases the author is rather peremptory in his condemnation of methods, which, for various reasons, may be used to advantage in some places. No great harm, however, is likely to be done by a rigid insistence on only the very best methods. As a

whole the book is one of the most satisfactory of its class, will be found useful to architects and draftsmen, and is well worthy of publication, creditable alike to the author and to the school with which he is connected.

### Building Outlook.

OFFICE OF THE INLAND ARCHITECT, }  
CHICAGO, December 10, 1889. }

The strongest features at the present writing, in the commercial and manufacturing world, is the extraordinary demand for all kinds of manufactured products. The second interesting feature is the well-sustained demand for house, shop, factory and mill room capacity and facilities. Another favorable feature is the maintenance of an abundant supply of money to facilitate exchanges. The country never entered upon a winter season with more encouraging prospects. Prices are well sustained. Business is being done at a fair though small margin. Combinations to compass great profits are coming to grief. Trade associations designed to regulate trade interests to the advantage of all are holding together, and are establishing a healthy equality between production and demand. New enterprises are multiplying rapidly in all sections of the country and in all channels of activity. Money continues to flow without abatement into all avenues where it is needed. Bankruptcies are comparatively few in number. Business men are becoming more proficient in calculating what the country wants, and economic advantages are being reached which are helping to widen the area of demand. The iron and steel manufacturers are crowded for crude and finished products as never before. The makers of machinery, large and small, of tools and equipments, of electrical devices, of rolling stock and locomotive power, are all oversold from two to four months. The volume of traffic is estimated at twenty-five per cent greater than last year, and the earnings of upward of one hundred railroads at twelve to thirteen per cent in excess of corresponding dates last year. Rates of interest are abnormally high, but financiers think the distribution of the crops will permit a relaxation of excessive rates. There are no dangerous symptoms in the situation. Business men are for the most part keeping clear of debt. Buyers are careful and sellers are keeping in sight of their obligations. Builders have been pleased at the results of ten months' work and they do not, at present, apprehend any falling off in next year's work. Labor is contemplating a movement looking to a reduction of the hours of labor to eight per day, but, fortunately, conservative councils are employed and no rash course is, from present indications, likely to be taken. Reports from manufacturing centers, north and south, show a very healthy condition of business. A vast addition has been made to shop capacity and this expansion is likely to continue. It is even asserted that existing productive capacity in many directions is not likely to long remain equal to demand, but this is, perhaps, a groundless apprehension. True wisdom will seek to maintain the existing healthy balance as long as possible. The newer sections which enterprise, capital and labor are opening up will help to expand the markets for manufactured products, and to widen the area of opportunity for all kinds of legitimate enterprise.

### Synopsis of Building News.

**Albany, Ga.**—Architects Bruce & Morgan, Atlanta: For Mr. Walter Muse, residence; cost \$30,000.

**Atlanta, Ga.**—Architects Bruce & Morgan have prepared plans for the Confederate Veterans' Home; cost \$25,000. For Judge J. L. Hopkins, two cottages; cost \$5,000. For Mr. J. T. Hollman, a frame residence; cost \$7,000. Architect L. B. Wheeler, for Mr. Don Bain, residence; cost \$4,500.

**Buffalo, N. Y.**—Architects Green & Wicks have drawn plans for the new First Presbyterian Church, to cost \$125,000.

**Chicago, Ill.**—Architect J. A. Miller: For M. J. Anderson, three dwellings; cost \$10,000. Collinsville pressed brick and Bedford stone fronts. For D. F. Anderson, ten dwellings, to cost \$35,000. Collinsville pressed brick and Bedford stone fronts.

Architect D. S. Pentecost: For M. E. Harold, a three-story store and flat building, \$8,000. St. Louis pressed brick and Michigan green buff sandstone; bathrooms, closets, stained glass. For A. Moss, a two-story frame dwelling at Melrose.

Architects Bell & Swift are now ready to receive estimates for warehouse to be built at East St. Louis for the McCormick Harvesting Machine Company. The same architects are getting out plans for a hotel; six-story, to contain sixty rooms, steam heat, elevators, electric light, etc.

Architect John Otter is making plans for a four-story store and flat building, to cost \$7,000, for Mrs. M. Isakson. Pressed brick and stone front, galvanized iron bay, bathrooms, closets, stained glass.

Architect E. F. Wilcox: For Henry Richards, a two-story frame residence; cost \$7,000; at Bellaire, Mich. Furnace, mantels, bathroom, closets, stained glass; making plans. For H. L. Van de Walker, a two-story frame dwelling, at South Englewood; furnace, mantels, stained glass; cost \$5,000.

Architects Fred Baumann & J. K. Cady: For E. O. Russell, a four-story block of stores and flats, size 108 by 111 feet, to cost \$75,000; Anderson pressed brick and terra-cotta, with copper bays.

Architect C. C. Miller: For J. P. Ketcham & Bro., two handsome blue Bedford stone front residences, to cost \$40,000; steam heat, and all the improvements. Mason work will be done by Joseph Downey of 159 La Salle street.

Architect C. F. Whittlesey has just let contract for mason work for the Fourth Baptist Church to be erected at 137 to 145 Ashland avenue, to Barney & Rodatz of the Lakeside Building; Portage variegated stone front and two sides; the foundation only will be put in this year.

Architect C. M. Palmer just finished plans for residence; Bedford stone front; furnace, etc.; on Forty-third and Lake avenue, for J. E. Quincy. Also preparing plans for a block of stores and flats, 250 feet front by 125 feet; Anderson pressed brick and Bedford stone; cost about \$300,000.

Architects Lutken & Thisslen: For G. T. Stoneham, a three-story store and flat building, \$5,000; Anderson pressed brick and Portage stone; bathroom, closets, stained glass; making plans. For Mr. Hoban, a three-story store and flat building, \$6,000; bathroom, closets, stained glass; making plans.

Architects Flanders & Zimmerman: For Miller & Chamberlain, a four-story store and apartment building; cost \$60,000; St. Louis pressed brick and Bedford stone.

Architect H. P. Harned: For A. G. Leonard & Co., of Chicago, a two-story factory at De Kalb, to cost \$25,000; steam heat, electric light, etc.

Architect J. F. Warner: For the Calumet Distilling Company, a one-story warehouse; cost \$10,000; taking figures. For Mrs. Rowan, a two-story flat building; cost \$10,000; St. Louis pressed brick and Bedford stone front, mantels, bathrooms, closets, stained glass.

Architect Thomas Wing: For Geo. F. Phegley, a residence, to cost \$6,000; Bedford stone front.

Architects H. Raeder & Co.: For C. P. Mitchell, four dwellings, to cost \$20,000; pressed brick and stone fronts.

Architect O. W. Marble: For Geo. C. Watts, five residences, to cost \$60,000; stone fronts, hot-water heating, marble work, stained, plate and beveled glass; preparing plans. For I. S. Smith, a residence, to cost \$12,000; blue Bedford stone



front; furnace, stained, plate and beveled glass, etc.; making plans. Also getting out plans for a block of four handsome dwellings to be erected on Vincennes avenue near Forty-fourth street; St. Louis pressed brick and Bedford stone; furnaces, mantels, stained, plate and beveled glass, etc.; cost \$25,000.

Architects Schaub & Berlin: For J. W. Thorp, a two-story frame residence; cost \$5,000; furnace, mantels, stained glass, etc.

Architect W. Ackerman: For Rev. James A. Murray, at Evansville, Wis., a two-story frame dwelling; cost \$5,000; furnace, mantels, stained glass.

Architects Thiel & Lang: For John Block, a two-story livery stable; cost \$10,000. For Ernst Bushner, a two-story flat building; cost \$5,000; St. Louis pressed brick and Bedford stone, bathroom, closet, stained glass. For H. Johns, a two-story flat building; St. Louis pressed brick and Lemont stone.

Architect Perley Hale: For Allan McCullough, a two-story residence, Bedford stone front, copper bay window, furnace, etc.; cost \$7,000. Also making plans for a three-story store and flat building, 73 by 68 feet, to be built on Seventy-ninth street, stone front.

Architect Alfred Smith: Just let contracts for residence for S. R. Moore, Bayfield, brownstone front; cost \$15,000.

Architect E. E. Snyder: For H. Duston & Sons, a six-story factory; cost \$25,000; pressed brick and stone front, steam heat, electric light, elevator.

Architect Julius Speyer: For James McMullen, a three-story and warehouse, 75 by 125 feet; cost \$20,000; St. Louis pressed brick and Bedford stone front.

Architect F. L. Fry: For Mrs. Cook, two dwellings; cost \$6,500; Meyerberg pressed brick and stone.

Architect H. S. Villere: For H. R. Buchanan, double residence; cost \$7,000; Anderson pressed brick and Bedford stone front, furnaces, mantels, etc. For Wm. Humason, fourteen two-story flat buildings, to cost \$5,200 each; Anderson pressed brick fronts.

J. W. Scoville and others will build a four-story hotel, to cost about \$80,000, at Oak Park; pressed brick and stone front, steam heat, elevator, etc. The architect has not been selected yet.

Architect S. V. Shipman: A six-story warehouse, to cost \$25,000, at 264 Clinton street. Mason work by N. Cameron & Son.

Architects Sprague & Newell: For the Colorado Coal Mine Company, a five-story hotel, 250 by 120 feet, to cost about \$200,000; to be erected at Pueblo, Colo.; Manitou red sandstone front, steam heat, two elevators, marble floors and vestibules, electric light, etc.; preparing plans. For Charles Kichlimer, a four-story store and office building, 44 by 140 feet, to cost \$50,000, at Pueblo, Colo.; red Manitou sandstone front, steam heat, elevator, marble work, electric light; making plans.

For Thurlow & Williams, at Pueblo, a four-story hotel, 75 by 140 feet, to cost \$75,000; pressed brick and stone front, elevator, electric light, steam heat, marble work; getting out plans. For addition to Southern Hotel at Pueblo; just got out drawings; elevator, new plumbing, etc. For J. W. Purdy, at Pueblo, a two-story residence, pressed brick first story and shingles second; furnace, mantels, stained glass, etc.; just completed plans. For Dr. Oliver, at Thornton, Ill., a two-story frame residence; cost \$5,000; furnace, mantels, stained glass, etc.; finishing plans. For Dr. Richard, Forty-second and Drexel boulevard, a two-story residence, pressed brick and stone first story and shingles second. For N. F. Nickerson, a four-story warehouse, 70 by 100 feet; to cost \$15,000; steam heat, elevator, etc.; letting contracts.

Architect L. B. Dixon: For F. Siegel, a three-story residence, to cost \$25,000; St. Lawrence marble front, hot water heating, marble vestibules, paneled ceilings, mosaic floors, elevator, dumb waiter, etc.; taking estimates.

Architects Ostling Brothers: For C. Carlson, a four-story flat building; cost \$20,000; Bedford stone front, furnace, elevator, bathrooms, closets; making plans.

Architect J. J. Kouhn: For Howard & Berwin, a five-story flat building, size 85 by 150 feet, to cost \$175,000; St. Louis pressed brick and Bedford stone front; mason contract let to J. W. Hersey.

Architects Fromman & Jebson: For Froehling & Heppe, residence to be made into a flat building, at 394 La Salle avenue; cost \$10,000; Bedford stone front, bathrooms, closets, etc. For William Schick, a two-story residence, 28 by 50 feet; cost \$8,000; Euclid gray stone front, furnace, mantels, etc.

Architect J. C. Zarbell: For Glenn Farm, Town of Bloom Industrial School building, 119 by 100 feet, two stories, common brick, steam heat, mantels, stained glass, bathrooms, closets, etc. A two-story schoolhouse, 50 by 78 feet. Three dwellings, two stories, 42 by 48 feet each. The whole to cost \$45,000; letting contracts.

Architects Flanders & Zimmerman: For L. Silvermann, a five-story warehouse, 100 by 100 feet; cost \$40,000; pressed brick and stone front. For Mr. Hardin, a three-story and flat building, 24 by 152 feet; cost \$10,000; stone front.

Architect Oliver W. Marble: For himself, seven handsome dwellings, to cost \$35,000; furnaces, wood mantels, bathrooms, plate, beveled and stained glass, pressed brick and stone fronts; estimates are now being received.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

The city is at present in the midst of what might be termed a "triangle conclave," for there are architects in front of you, architects at the right of you, and architects at the left of you. But unlike the charge of the "six hundred," they are bent upon a peaceful mission of good will and fraternity. The report that architects are scal(e)y fellows is, in a measure, true, and yet wrong, for a more gentlemanly convention never assembled in our city, entirely free from creed or politics.

Sharing the honors for courteousness, enterprise, and glory is our Cincinnati Architectural Club, which so successfully inaugurated the beautiful, instructive, and artistic exhibition of architectural drawings, so complete in all its details, a clear interpretation of the wise saying about the acorn and the oak.

Old Pike's Opera House has been the scene of many lyric, dramatic and social triumphs, but this exhibition will lower its colors to none, and from the stimulus thus received our club is bound to "go on conquering and to conquer." The C. A. C's members, "cacks" jocosely called, have proved themselves unworthy of that base libel, but worthy to take their stand among men. A detailed account of the works of art does not come within the province of this article.

Mr. James W. McLaughlin was the successful competitor in the Young Men's Christian Association competition, the design and plan showing that "his hand has not lost its cunning, or his eye its brightness."

All the drawings submitted showed careful thought in design and detail, and the unsuccessful architects have no reason to feel discouraged or ashamed of their work.

The gleaning of news in convention times is an arduous matter, but the following will, I hope, prove beneficial to advertisers.

Architect W. W. Franklin reports, among other plans, the below mentioned:

For Mr. Hubert Ferguson, a frame and slate residence, two and a half-stories, twelve rooms, pine finish, slate roof, wood mantels, stained glass, plumbing, etc.; cost \$3,500. For Michael Kane, a stone residence of about twelve rooms, hardwood finish, wood mantels, stained glass, slate roof, electric work, plumbing, etc.; cost \$10,000. For R. C. Price, a brick residence, ten rooms, pine finish, slate roof, wood mantels, stained glass, electric work, etc.; cost \$9,500. For Julius Wilhelmshorfer, a double frame house, with pine finish, slate roof, electric bells, wood mantels, stained glass, etc.; cost \$6,500.

Architect W. Stanton Robinson reports a frame dwelling, with shingle roof, pine finish, wood mantels, etc., to cost \$2,000; for V. Humbrecht, Terra Alta, Ohio.

Architect Adam J. Bast has prepared plans for two large store and flat buildings for Mr. Geo. Muhlhauser, city. They will be very complete, of pressed brick, with stone trimmings, tin roof, and architectural iron fronts, etc.; cost about \$80,000.

Wm. Schubert, Jr., has prepared plans for a seven-story, stone and iron front store building, for Wm. J. Fabian, Trustee, Chicago, Ill., 30 by 168 feet; cost \$50,000.

Architect Emil G. Reuekert reports as follows: For Fred'k Achert, a brick residence, two and one-half-stories, electric bells, stained glass, furnace, slate roof, etc.; cost \$9,000. August Henkel, a brick residence, two and one-half-stories, slate roof, electric bells, stained glass, etc.; cost \$7,500. John H. Voss, a residence of similar description; cost \$5,500.

Architect J. W. McLaughlin is busy on the plans for the Wayne County Court House at Richmond, Ind., to be of stone, three stories and tower, fireproof construction, elevators, steam heat, stained glass, furniture, etc.; cost \$260,000. For Standard Publishing Company, a brick building, 50 by 80 feet, seven stories, of slow burning construction, hydraulic elevators; cost \$25,000.

**Denver, Colo.**—Architects Lee & Liden: For the Rosenfeld Construction Company, terrace of nine houses, red sandstone; cost \$60,000. For C. H. Rosenfeld, residence, pressed brick; cost \$9,000. For E. J. Rosenfeld, pressed brick; cost \$11,000. For The Elitch Gardens, a pavilion and theater building, frame, to seat 2,000 people; stage, 30 by 50 feet; cost \$12,000.

**Detroit, Mich.**—The present condition and outlook for spring work are both good. There is a large increase in the permits this month over the same last year. There were 187 permits for new buildings issued during November, at an aggregated estimated value of \$309,335, and thirty-two permits for alterations and additions at an aggregated value of \$82,050, making a total of \$391,385 for the month.

Architect J. V. Gearing: For Dr. H. C. Corus, four three-story dwellings, 108 by 40 feet, brick, with stone trimmings, slate and gravel roof; cost \$10,000.

Architects Rogers & MacFarlane: For S. Robinson, two-story dwelling, 32 by 70 feet, brick, with stone trimmings; cost \$6,000. For Mrs. A. Holmes, three-story store and dwelling, 20 by 60 feet, brick, with stone trimmings, gravel roof; cost \$6,000.

Architect G. W. Lloyd: For Sidney D. Miller, three-story double dwelling, 48 by 100 feet, brick, with stone trimmings, slate roof; cost \$17,000.

Architects Scott, Kamper & Scott: For Peninsular Car Company, one-story shop, 100 by 380 feet, brick, with stone trimmings, gravel roof; cost \$6,000. For Hodges Bros., two-story addition to office block, 72 by 83 feet; cost \$35,000.

Architect A. C. Varney: For Chas. Baxter, a two-story double dwelling, 54 by 67 feet, brick, with stone trimmings, slate roof; cost \$10,000.

Architect A. E. French: For Mrs. Sampson, two blocks of two-story stores, brick and stone, gravel roof; cost \$7,200, and a three-story planing mill, 67 by 91 feet, brick and gravel roof; cost \$5,000.

Architects Donaldson & Meier: For Farrand & Votey Organ Company, three-story addition to factory, 44 by 150 feet, brick, gravel roof; cost \$15,000.

Architects' names not reported: For Chicago Beef Company, two-story warehouse, 44 by 104, brick, gravel roof; cost \$9,000. For the City of Detroit, a two-story sanitary crematory building, 66 by 166 feet, brick, gravel roof; cost \$1,000. For Hugh S. Peoples, four two-story stores, 80 by 50 feet, brick and stone, gravel roof; cost \$14,000. For Jeremiah Connor, two two-story dwellings, 24 by 45 feet, frame, shingle roof; cost \$5,600. For R. J. Wilson, two-story dwelling, 36 by 58 feet, brick and stone, slate roof; cost \$7,000. For The Michigan Wire and Iron Works, 28 by 28 feet, ten-story dry tower, brick, gravel roof; cost \$5,500. For Wm. Luitze, six two-story dwellings, 20 by 56 feet, frame, slate roof; cost \$10,800.

**Dubuque, Iowa.**—Architects T. Heer & Son report the present outlook for spring work is very promising. For Dubuque Packing and Provision Company, one-story packing house, 100 by 255; cost \$15,000. For Dubuque Butchers Association, packing house addition; cost \$7,000. For Sisters of St. Francis' Convent, addition, three stories, brick and stone trimmings, 44 by 120; cost \$20,000. For Electric Light Company, a three-story brick building, 50 by 90 feet; cost \$6,000. For the Duluth Cith Hall, improvements, vaults, etc.; cost \$5,000.

**Freeport, Ill.**—Architect G. S. Mansfield: For St. Mary's Parish, church, 60 by 120 feet, brick and stone; cost \$25,000.

**Gothamburg, Neb.**—Architects Foster & Schoule, Kearney: For W. H. Van Volkenburg, hotel, with all modern conveniences; cost \$13,000.

**Graceville, Minn.**—Architects Herman Kretz & Co., St. Paul: Catholic church; cost \$12,000.

**Kansas City, Mo.**—Architect W. F. Schrage: For R. H. La Moyne, four-story apartment house, 120 by 64 feet, brick with stone foundations and trimmings; cost \$69,000.

Architect A. B. Cross: For Thos. Carpenter, residence, 22 by 40 feet, two stories, pressed brick and stone; cost \$9,000.

Architect E. F. Owles: For Miss M. J. Neumaw, residence, 30 by 32 feet, two stories, brick and stone; cost \$5,000.

Architect L. Levering: For J. P. Ryan, dwelling, 22 by 37 feet, two-story brick and stone; cost \$9,000.

Architect A. Van Brunt: For J. A. Hays, residence, 35 by 47 feet, two-story brick and stone, slate roof; cost \$6,000.

**Little Rock, Ark.**—Architects Orlopp & Kuesner: For M. A. Orlopp, Jr., a frame residence; cost \$3,000. Also Pulaski County Hospital; cost \$30,000.

Architect F. J. H. Ruben: For Fred Kramer, two stores, 50 by 140 feet, two stories, brick; cost \$25,000.

Architect Thos. Harding: For Z. Ward, three brick residences; \$10,000. For J. Katzenstein, brick residence, two stories; \$10,000. For C. M. Butler, brick residence; \$10,000.

**Louisville, Ky.**—Architect J. S. Frazer: For the Chesapeake, Ohio & Southwestern Railway Company, union depot; cost \$500,000.

**Manitou, Colo.**—Architects Lee & Liden: For Mr. Frank J. M. Smith, a club house, frame, one-story and attic, to cost \$10,500.

**Milwaukee, Wis.**—Architect H. P. Schnetzey: For the Blatz Brewing Company, offices, 60 by 54 feet, three stories; cost \$25,000.

**Minneapolis, Minn.**—The following permits were issued during the month of November:

F. T. Dahl, two-story frame dwelling, \$5,000; St. Mary's Hospital, two and one-half-story brick addition, \$15,000; Mohn & Townsend, two double two-story frame dwellings, \$9,000; D. E. Jones, five two-story frame dwellings, \$23,500; H. B. Wood and W. W. Morse, six-story brick warehouse, \$51,000; Henry Parsons, two-story frame dwelling, \$5,500; C. C. Whitney, two and one-half-story frame dwelling, \$5,500; F. E. Sprague, alterations in building, \$4,600; A. J. Blethen and Century Investment Company, foundation, office building, \$7,500; F. G. McMillan, two-story frame dwelling, \$4,000; State University of Minnesota, three-story brick and stone chemical and physical laboratory buildings and three-story brick and stone law school, and boiler and engine house, \$150,000; C. Marchessault, brick wholesale building, \$10,500; N. & V. Cambell, brick wholesale building, \$40,000; R. P. Russell, brick commission store, \$6,000; P. J. Tostevin, dwelling, \$3,000; Standard Oil Company, brick barn, \$3,050; John F. Peterson, dwelling, \$5,900; J. E. Hare, seven dwellings, \$16,400; M. L. Gable, dwelling, \$7,000; Mary Dahl, foundation, \$4,000; A. Friel, dwelling, \$6,000; L. Groft, dwelling, \$10,000; H. G. Darrow, dwelling, \$4,000; A. F. Shearer, dwelling, \$3,500; Chas. Peterson, dwelling, \$3,000; Erick Lund, brick veneer block of dwellings, \$30,000; Jacob Barge, dwelling, \$10,000.

**Pittsburgh, Pa.**—Architect W. S. Fraser: For Chas. A. Wolff, a brick two-story and attic dwelling; cost \$9,700.

Architect J. W. Offerman is preparing plans for four brick residences for Ed House, Jr.

**San Francisco, Cal.**—Architect H. Fieffuss: For Louis Deiser, a three-story frame building; cost \$6,000.

Architects Acton & Stone: For R. R. Hurd, four-story frame building; cost \$12,000.

Architects Percy & Hamilton: For Mrs. M. M. Latson, three two-story houses; cost \$15,000. For Academy of Sciences, building, to cost \$19,400.

Architect Samuel Newsom: For Mrs. Rose Radgesky, residence; cost \$10,000.

Architect P. R. Schmidt: For D. Block & Co., two-story factory building; cost \$15,000.

Architects Pisses & Moore: For Mrs. Bertha Greznberg, a frame residence; cost \$6,200.

Architect F. T. Doolan: For T. Doolan, three-story frame building; cost \$17,000.

Architect J. H. Dittelfield: For the Concordia Club, modern building, elevators, electric lighting, etc.; cost \$14,000.

**Sheffield, Ala.**—Architects Bruce & Morgan, Atlanta, Ga., have plans for Dr. A. G. Haygood's new residence; cost about \$500,000.

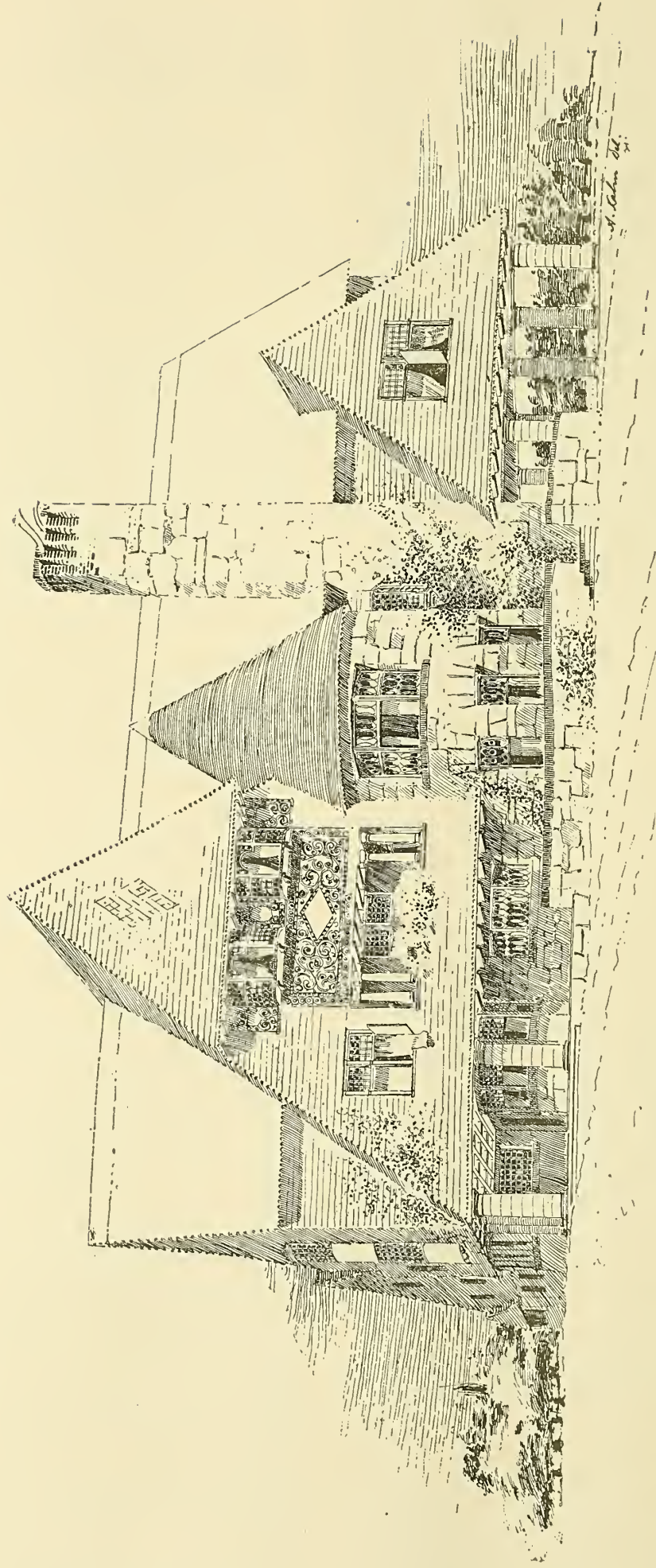
**Spencer, Iowa.**—Architects T. Heer & Son: For A. Koch, store and office building, 21 by 90 feet; cost \$6,000.

**Tomahawk, Wis.**—Architects E. V. Koch & Co.: For the Tomahawk Opera Company, opera house building, 54 by 150 feet, electric light and iron beams; cost \$20,000. Also a hotel, three-story; cost \$25,000.







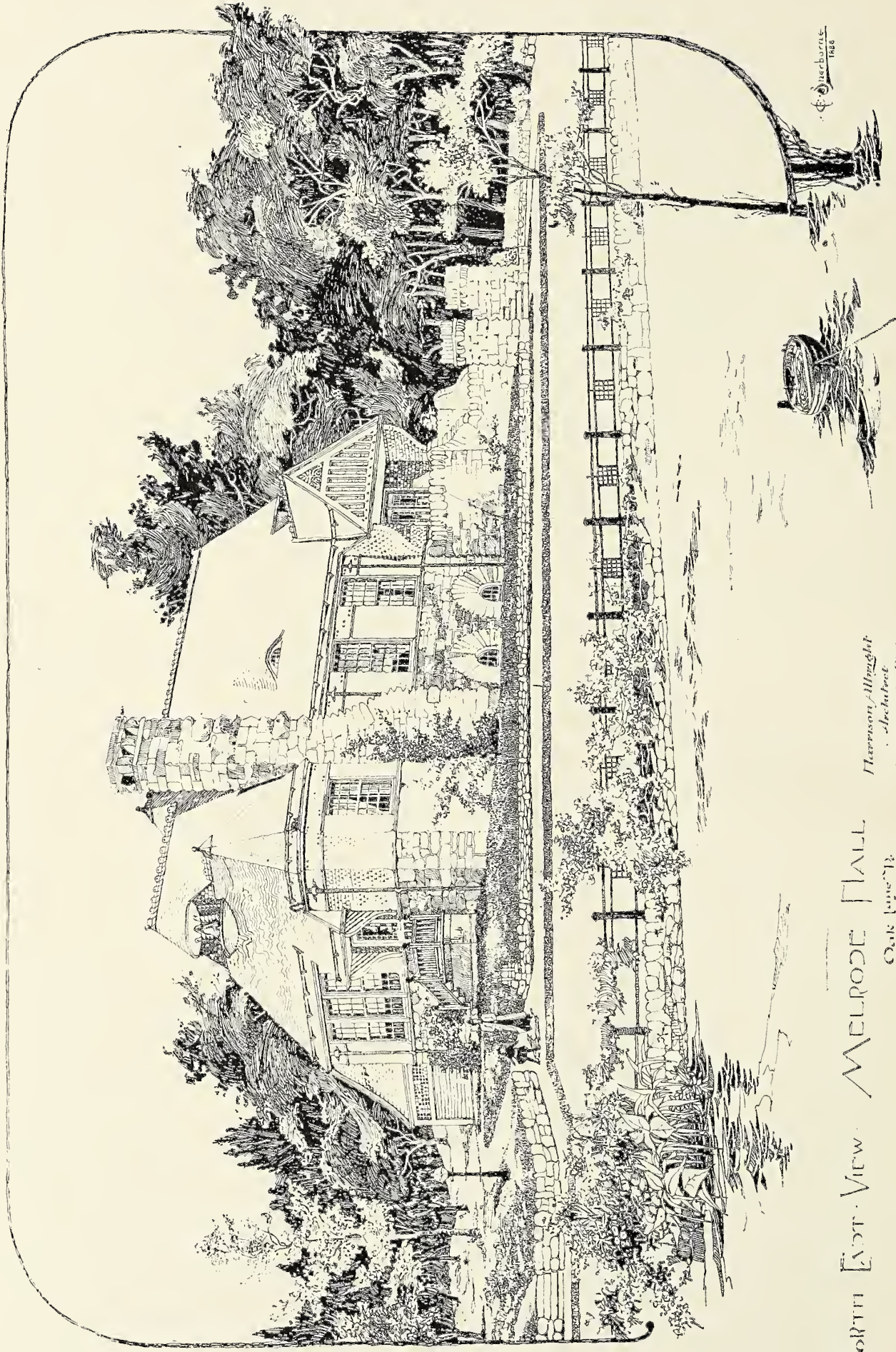


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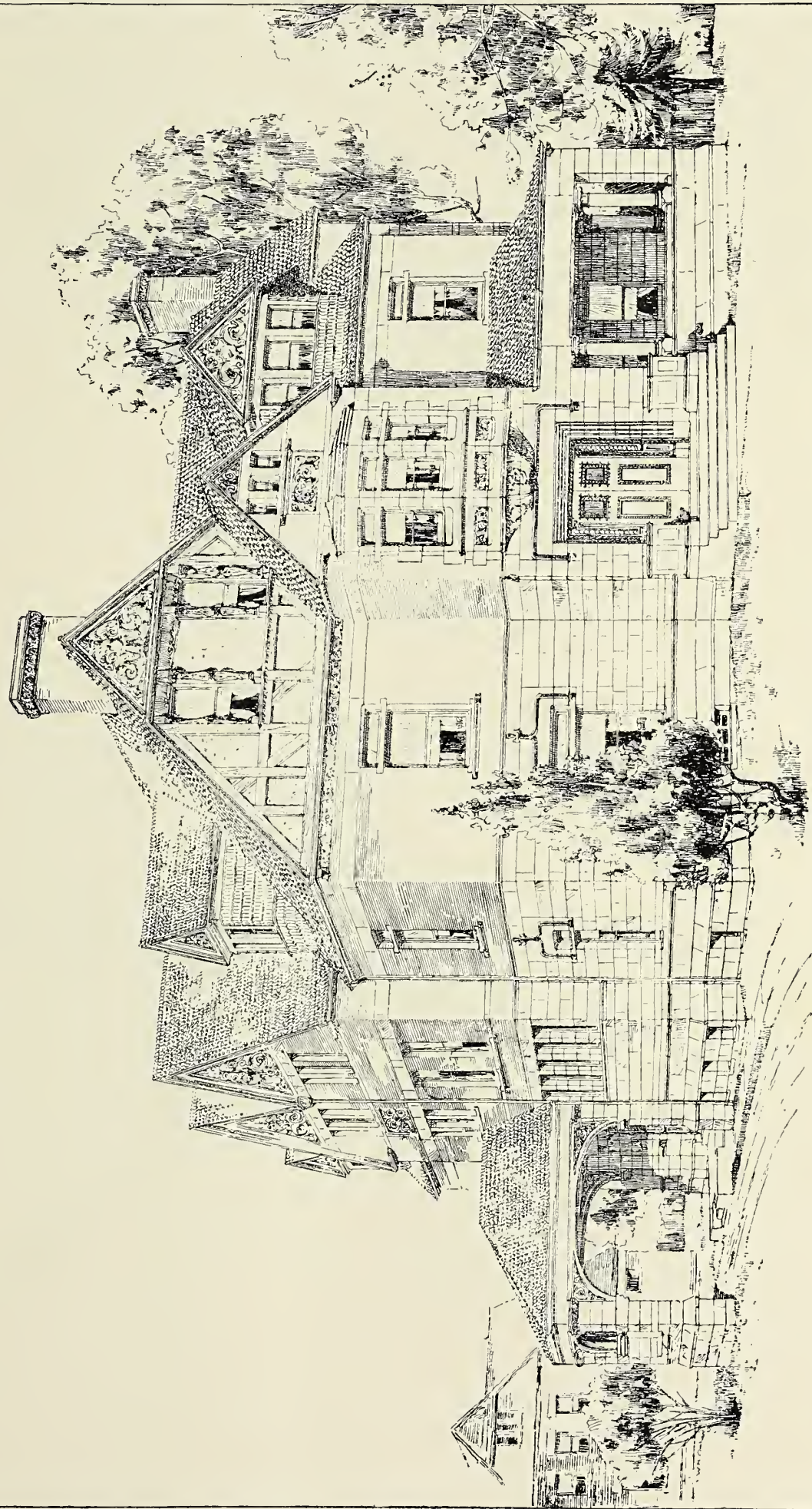




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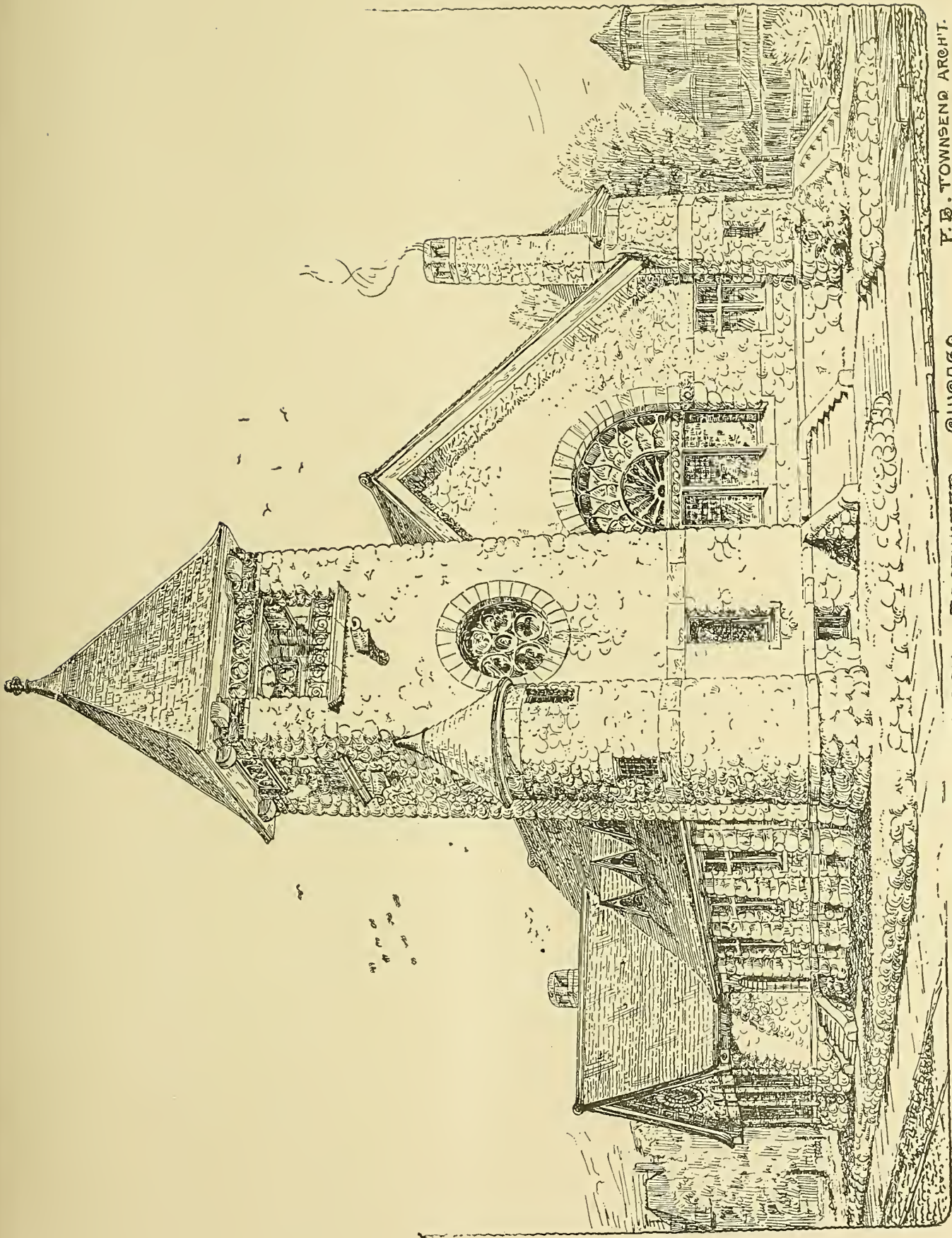
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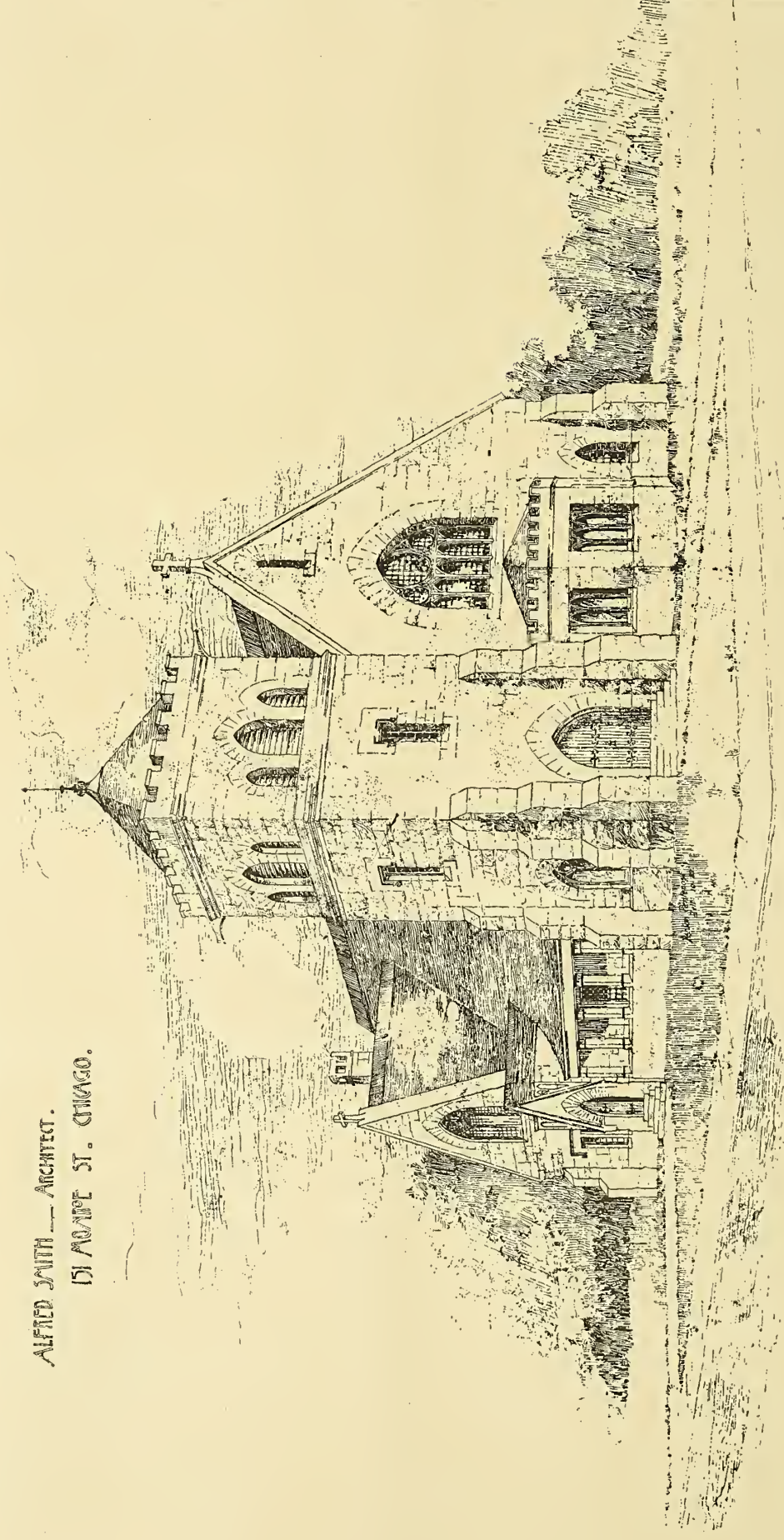






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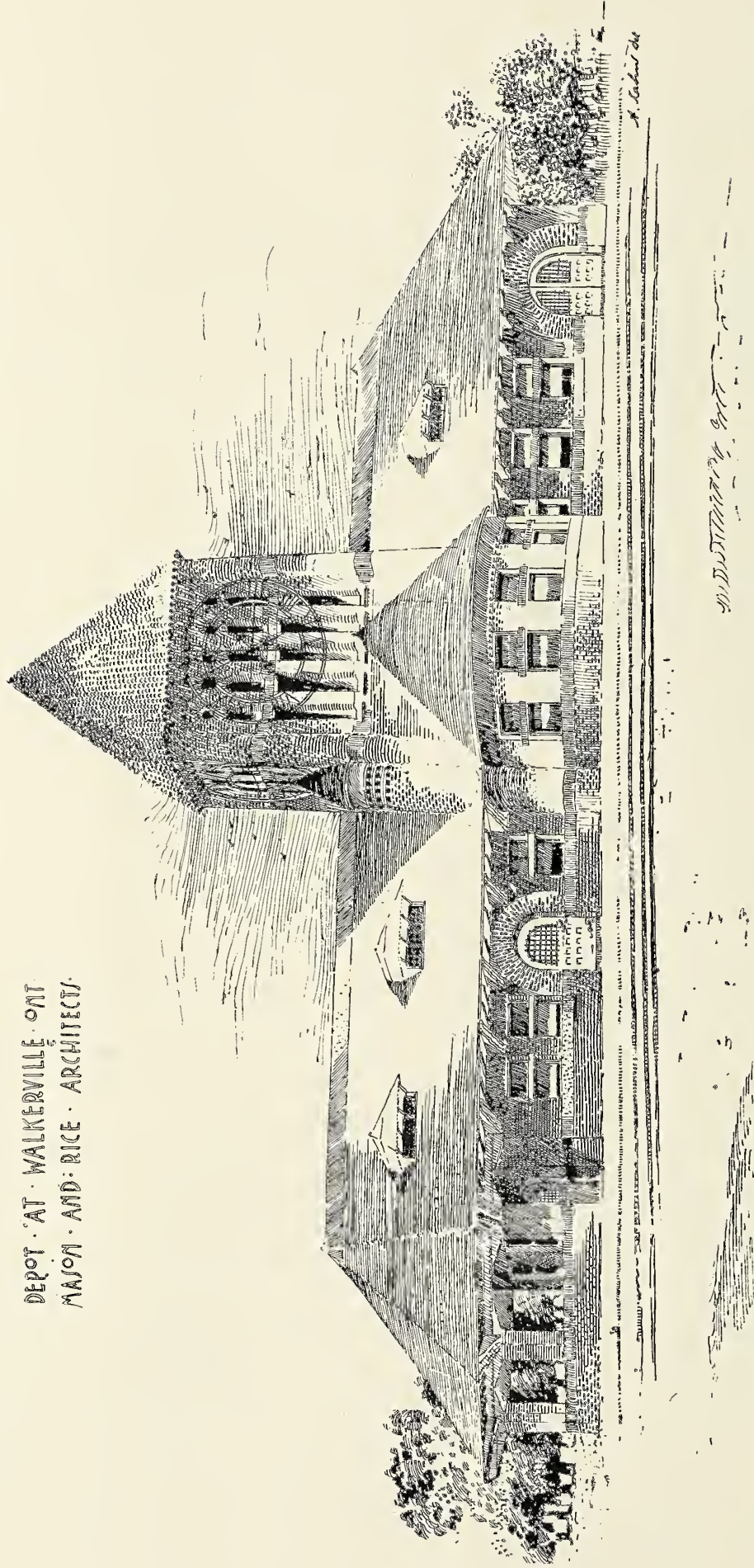








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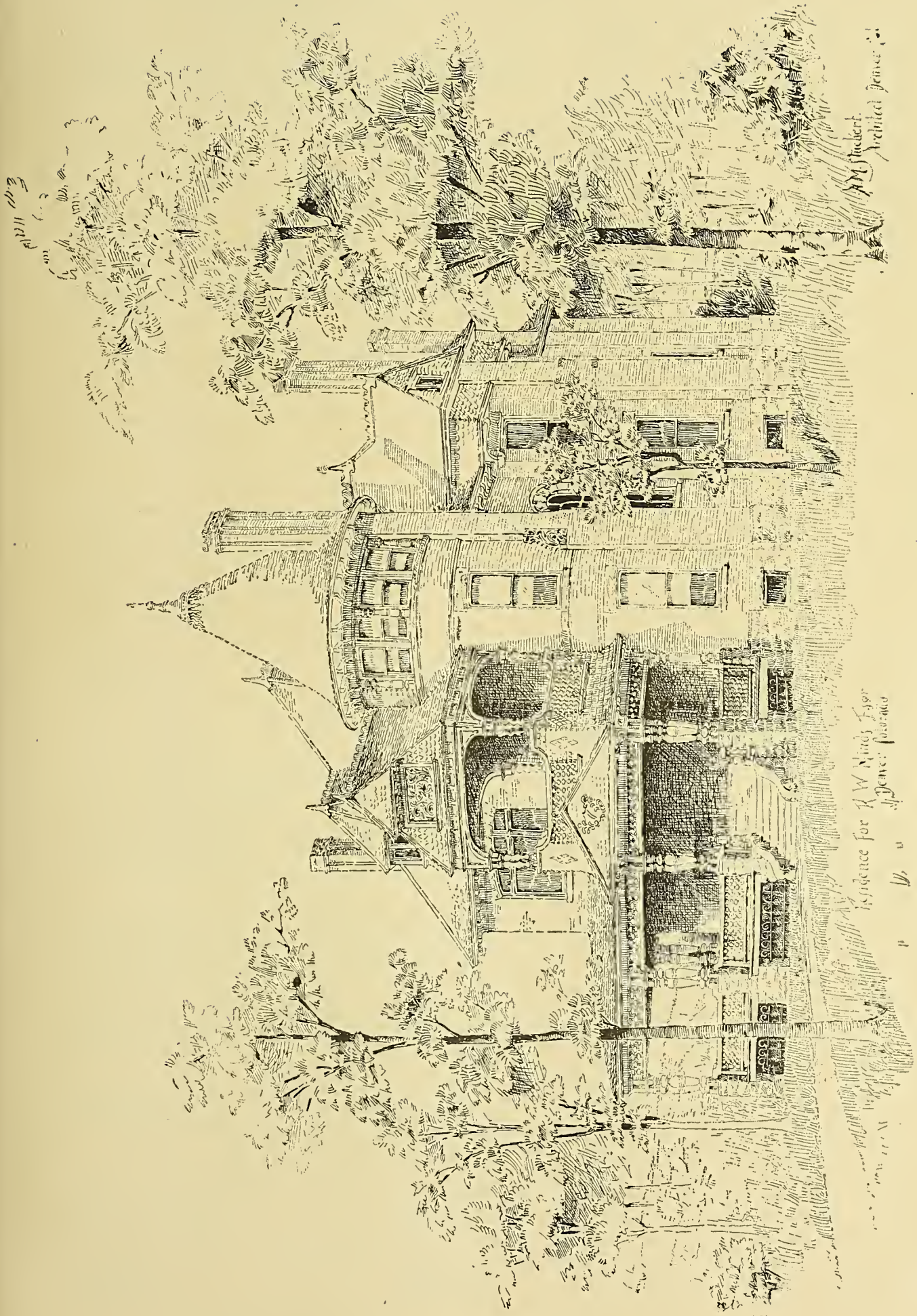


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# THE INLAND ARCHITECT AND NEWS RECORD

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No. 8

JANUARY, 1890.

## THE INLAND ARCHITECT AND NEWS RECORD.

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Death of	Architect George F. Durand, of London,
Architect	Ontario, died at his home in that city, on
George F.	December 20, after a protracted illness. He
Durand.	was thirty-nine years of age. Mr. Durand,

who was a native of London, first studied his profession in the office of Mr. William Robinson, then city engineer. Going to Albany, New York, he became first assistant to Architect Thomas Fuller upon the capitol building. After that architect resigned his position as architect of the building, Mr. Durand returned to his native city and, in 1878, entered the practice of his profession with Mr. Thomas Tracy, under the title of Tracy & Durand. In 1882, the firm, after enjoying remarkable success, dissolved, upon Mr. Tracy being appointed city engineer, and the business has since been carried on by Mr. Durand, until his last illness. The structures, both private, ecclesiastical and public, erected not only in London, but throughout the provinces, designed by Mr. Durand are many, the more important being the Masonic temples at London and Petrolia; the custom house, Culbourn street and Talbot street Baptist churches, Canadian Savings and Loan Company's building, etc., at London; the Upper Canada College, the Stratford hospital, the Perth county buildings, etc., all showing a designing and constructibility of a high order. Mr. Durand's reputation among Canadian architects is indicated by his being twice elected first vice-president of the Ontario Association of Architects, and it is a strange coincidence that upon the day of his death he was unanimously reelected to that office at the convention in Toronto, at which his absence was remarked and regretted, but none supposing his illness to be of a serious nature. He was devoted to his profession, of an energetic and genial nature, that, with high intellectual capacity, won for him a host of friends, both in and out of the profession, who feel that his early death is a public loss.

Completion	One of the most notable events in the
of the	architectural history of this country is the
Chicago	completion of the Chicago Auditorium. The
Auditorium.	problem, involving the combination of a great

hotel, an office building and an auditorium capable of seating 6,000 people, was one never before attempted on so large a scale and its completion is marked by phenomenal success. The opinions of capable critics in regard to the architectural effect of the exterior are varied, a difference in regard to its style rather than its true grandeur, but no one who has seen the interior of the Auditorium has any opinion but that it is a great architectural conception. In point of utility, the occupation of the Auditorium nightly for a month has shown that in facility of ingress and egress, in ventilation, in line of sight, and, more important than all, in its acoustics, the result is far beyond any prophecy. In a European country the architects of such a structure would have been knighted, or have received other marked approval from the government. Here they receive the applause of a great people; they abandon their work to the public in the presence of the chief executive of the nation; and it will be by future generations that the true greatness of their work will be most realized. We have seen the labors of Architects Dankmar Adler and Louis Henry Sullivan upon this work from its inception to the day of its completion, and know something of the difficulties which they overcame in carry-



ing out a grand conception through the environments which, in a commercial country like this, always tend to belittle art and enlarge expediency. They have a long architectural career before them, but future generations will say that when the Auditorium was completed their monument was set up for all time.

Offering  
Commissions  
on Materials  
to Architects.

Two letters, written by material dealers to prominent architects, have been forwarded to us for inspection and comment, one of them indorsed, "Here is a sample letter; give these fellows fits through your paper." The letters, which are taken as gross insults by their recipients, are plain business letters, setting forth the merits of the materials manufactured by the writers and courteously presenting a wish for a share of patronage. They are similar to many others we have received from architects similarly indorsed. As they are written in good faith, to all appearances, we will not publish them, but explain for the benefit of all material dealers wherein every letter containing a similar clause to those noted is considered insulting by every architect who honestly practices his profession. The mistake is in offering a commission to the architect upon material, the sale of which is obtained through his influence, as, to quote, "as we have no salesman in your section we will allow you twenty per cent commission on all orders arising from your specifications." No architect can receive a commission honestly. His relation to the owner is as the lawyer to his client. He is not only the designer of the building, but the arbitrator between his client and the contractor, and he is paid for his services by his client. When he specifies a special material he must do so because in his judgment it is the best for the purpose. How can he do this if he is agent for the material, in fact, an employé of the manufacturer? The material dealer not only loses the sale of his material, but risks the chance of any patronage his otherwise business-like letter might bring him, and secures the enmity of the architect when he intimates a belief that he can be bought by offering him a commission. In these days of close competition it is not strange that business men will seek in every way to extend their sales, but we would advise them not only not to offer commissions to architects, but be careful how they do business with any architect who seems disposed to accept a commission.

Canadian  
Architects  
and  
Competition.

That new and usually bright and newsy architectural journal, the *Canadian Architect*, gives almost three pages of space in its last issue in trying to show how competitions should not be conducted, taking as a text the recent competition for the Canadian Life Building at Toronto. If the *Canadian Architect* would take a tenth part of the space and denounce competitions as an evil, and then turn to the records of the St. Louis convention of the Western Association, it will find there a policy outlined that, if followed by architects in Canada, or anywhere else, will cure all the evils it complains of, and many more. If architects will enter competitions they should be willing to accept any treatment placing themselves in such a position may entail, and the *Canadian Architect* is pursuing an unwise policy in taking up the cause of "one of the rejected ones," instead of saying, "served you right for entering a lottery scheme, even if there were premiums offered." The competition in question was above the average in fairness; the expert, we believe, was honest and the design creditable to the architects and the owners (we thought it the best among

those exhibited), but an expert was chosen, and the fact of sending in drawings to the competition was an assent to all the conditions, including the verdict of that expert. We would advise our Canadian friends to adopt the Western Association code, and where they feel that they must enter a competition refuse absolutely to enter upon any other basis than that there laid down. It does not destroy the evils of competition, but its provisions reduce the chances of unfairness to a minimum. There are enough capable architects in Canada for owners to select from and feel certain that the work will be creditably carried out, and the public should be taught that in this way only will it avoid the uncertainty that always attends competitions.

Sixth Annual  
Meeting of  
the Missouri  
Association.

The sixth annual convention of the Missouri State Association of Architects was to be held at Kansas City on January 14, but at the urgent request of the St. Louis members, who could not generally attend on that date, the meeting is postponed to February 11. As this is the largest state association west of the Mississippi, its influence extends far beyond the state borders and its acts largely aid those of the National Association in the establishment and maintenance of correct professional practice. The following call was issued by the secretary before the change of date:

The next annual convention of the Missouri State Association of Architects will be held at Kansas City on January 14, 1890. This being the first convention following the consolidation of the W. A. A. and the A. I. A., a number of highly important questions will arise on which the future existence and prosperity of our association and all professional interests in the state depend. Therefore the fullest possible attendance is desired and it is hoped that every architect receiving this circular will appear at this meeting without failure or excuse. Architects not already members are earnestly invited to be present, the interest of one being that of all.

The meeting will be held at the Midland Hotel. The display of architectural drawings is an important feature and it is hoped that all who can will send contributions. They should be expressed to E. F. Fassett, Rialto Building, corner Ninth street and Grand avenue. The association will defray all expenses of expressage both ways, and will hang and re-pack free of charge.

By order of Executive Committee,  
JAS. OLIVER HOGG,  
Secretary M. S. A. A.

E. F. FASSETT,  
President.

The exhibit of architectural drawings at conventions is highly educational and gives architects a glimpse of each other's office work that can be obtained in no other way. Beside attending the convention as urged in the call, special pains should be taken to make the drawing exhibit large and representative, and the added time given by the postponement for one month should make this exhibit most successful. It should be kept in mind by the Missouri State architects as well as elsewhere, that a live state association is vitally necessary regardless of the existence of local chapters, and its form and integrity should be maintained. Without a healthy state government there can be little progressive growth locally.

Reorganization  
and Work  
of State  
Associations.

As a number of state associations hold their annual meetings within the next few weeks, the secretaries of each should secure general instructions regarding the new attitude of state associations toward the reorganized National Association from the Executive Committee which met at New York January 6 to determine the relations of state associations to the national body, the relations of members, etc. There should be a state association in each state in the Union. Whether the members of the state association must also be members of the national body might be left to the state association to decide, but it should be established as a law that all officers should be members. It should also be established that all members in the state and national bodies



have equal standing, but at present there are many architects who would earnestly support a state organization but who would, because of failure to see the advantage, or some other reason, decline to join the national. Almost equal with the professional standing of its members, what the state association of today needs is numerical strength, and this should be fostered in every way consistent with good sense so that the main object of its existence, the securing of legislative action upon the establishment of a legal status for the profession, may be augmented to the fullest extent. With this in view, and it should never be lost sight of among lesser measures for general advancement, the first standing committee of each state association should be that having in charge a bill for the examination and licensing of architects. This should be composed of the strongest and most active members, and should be given full power to call to its assistance other members or expend money and time in the accomplishment of its object. Because the architects of England and France have failed in this is no reason why continued effort should not be made in this country, where an intelligence superior to all other peoples is found in that portion of the public which is called the masses and which hold the reins of all legislation.

**Fire Insurance Under the Uniform Contract.** Several recent cases of loss by fire on buildings in process of erection, says the *Builders' Exchange*, have brought forcibly to the minds of contractors how carefully the national committees framed the Uniform Contract to secure perfect protection in this regard, and how unfortunate they (the contractors) have been in not demanding and securing the use of this standard form, now that they must face a possible loss, owing to their negligence. The Uniform Contract, in Article 2, provides that the *owner* must in all cases secure insurance, the policies to cover the possible loss of both owner *and* contractor, as their interests may appear, so that, in event of a fire, there can be no question either as to whom the insurance money shall be paid or as to the right of the owner to demand that the contractor shall proceed to make good the work which he has only partially completed. The old style contracts, as presented by architects all over the country in a thousand varying forms (each one claiming to be the best) invariably leave this important matter of insurance in such indefinite shape that in cases of loss disputes are sure to arise as to the rights and obligations of the two parties to the agreement. In the Uniform Contract this has been thoroughly considered and equitably adjusted, as well as many other points of equal or greater importance, so that if contractors will simply demand its use, they will be effectually protected, and protected in all parts of the country alike. Contractors can expect little sympathy if they neglect to take advantage of the means which has been provided for them to secure the best protection possible, through a standard form of contract.

**Reorganization of State and Local Chapters.** The first meeting of the executive committee of the American Institute of Architects was held at New York on January 6. The principal matter under consideration was relative to the reorganization of state and local chapters. It was considered primarily to be in every way desirable that the formation of new chapters should in every way be encouraged, and that existing chapters should be continued under the new constitution. While it was thought good policy that all members of chapters should also be members of the

Institute, no desire was felt by the committee to interfere in any way with the freedom of chapters, except in so far as such freedom might conflict with the constitution and by-laws of the Institute, and the general regulations regarding the admission of members. Thus, while a member of a chapter must belong to the Institute, and upon election to the Institute, become a regular member of the chapter, provision is made for an associate membership of chapters by a modification of Article X of the by-laws, which will allow a growth in the chapter outside of the Institute membership. In general, the chapter is left free to make any regulations desired which do not conflict with those provided to secure to the Institute a uniform high standard of membership. In regard to geographical boundaries of chapters, it was thought wise to allow common interest and convenience to govern their jurisdiction, and also because the business of the individual might often make it desirable for him to join a distant chapter. It was decided that five fellows could form a chapter, this small number being prescribed to facilitate the formation of chapters in parts of the country where there are few architects, but where the work of chapters is especially valuable. It is, in our opinion, a wise rule that fellows should be elected to the Institute through the chapters, as it encourages chapter growth, and, at the same time, is a greater guarantee of the character and standing of fellows, as in this way they come to the Institute with the indorsement of all rather than of a few of their associates. A circular letter, it is understood, will be immediately sent to members regarding this matter, and containing a general digest of the question of state and local chapters.

**Fourth Annual Convention N. A. B.** The fourth annual convention of the National Association of Builders will be held at St. Paul, January 27, 28 and 29. There will be represented by the delegates about seven thousand members, comprising about thirty exchanges, located in cities from Maine to California, which shows somewhat the growth of the association in the three years of its existence. The visitors will be the guests of the St. Paul Builders' Board of Trade, and from the programme we would judge that the entertainment will be royal. The ice carnival will be at its height, and the visit to Minneapolis will be equal in interest with that to St. Paul. The circulars and programme issued, which are published in full upon another page, show how thorough the work of organizing for this important convention has been done by the secretary and the committees in charge. In fact, there is no association in the United States whose conventions are so thoroughly business-like, and, therefore, valuable, as those of the National Association of Builders. It is fast placing the building interests of the country in the controlling position its importance to the people as well as the amount of capital it invests and distributes every year entitles it to, but which would remain entirely unimportant were it not for the thorough organization it is making of the building interests throughout the country. Through it trade schools will become common as other public schools, boys will be permitted to learn trades, strikes will be made impossible through the education of workmen and the fostered inclination toward the arbitration of all differences. One of the strongest evidences of the intelligent character of the association is its thorough coöperation with the architects in all those questions which affect their mutual interests.



## Romanesque Architecture.\*

### CHAPTER VII.

#### VAULTED CHURCHES.

THE Romans erected many edifices and constructed them throughout all western Europe with such skill and art that the Roman traditions were not lost, even during the epoch of the Barbarians.

The Roman vault, either ribbed or groined, was known to builders for a long time after the fall of Rome. They frequently used these two forms of vault, and their use was constant in the construction of subterranean edifices or crypts, which about the eighth century replaced the confessionals of the basilicas.

It is interesting to notice *apropos* of this subject, that a difference existed between these two works. The confessional was a cell constructed half above and half below the ground; it served as a platform for the altar, and at the same time contained the tomb for the body of a saint, which, according to liturgic laws, had to be placed under the altar. The recess was of small dimension, for it was often easily covered by a single slab of stone. The crypt was completely or partially subterranean. They either made excavations entirely for the place or the natural lay of the ground permitted certain parts to be used in such a manner that the interior of the crypt was lighted. This crypt was composed of a number of compartments, between the foundation of the church, extending under the main altar, and often even under other parts of the church. These compartments were covered by vaults, either simple barreled vaults or barreled vaults intersecting each other, or by large arches whose intervening spaces were filled in with ribbed vaults. All these arches or vaults rested on columns or piers which offered a solid counter-buttress in the sub-basement, being the points of support from above.

But these edifices, because they were vaulted, were not Romanesque. They were constructed according to the Roman method, and they resembled the antique monuments that the architects of the eighth century copied rudely or more or less naively. Moreover,

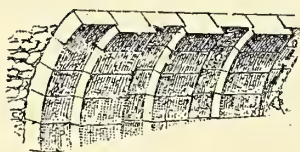


FIG. 131.

They are formed of heavy walls, on which are rested slabs of stone (Fig. 128). This method was known to the Syrians, who used it very wisely, considering the material which they had at their disposal. We studied this kind of construction in the church of Tafka, Central Syria, built from the fourth to the fifth century on the model of the antique basilicas.

According to Quicherat the amphitheater of Nimes offers a most finely preserved example of the heavy arch of the Roman epoch. The corridor which forms the last division of the second story is covered with a barreled arch strengthened by ribs which rest on brackets.

At Nimes, in the Nymphia, or Baths of Diana (Roman work of the second century), are barreled arches of large size, whose elements are composed of double arches very ingeniously combined, and the cutting of whose stone is studied with particular care. The arches form, so to speak, permanent circles of stone, between which are fixed slabs of cut stone as key stones, and resting in the rebate on the lateral faces of the heavy arches (Fig. 131). It is certain, however, that architects constructed in the eighth and ninth centuries not only crypts, but vaulted monuments beside, of small dimensions, it is true, and not presenting the difficulties which resulted from the width and height of the nave.

According to Quicherat, the bishop of Toldus, a Merovingian prince, who occupied the See of Venice in 708, had built in the midst of the city a little vaulted edifice, in which to place the relics of St. Maurice and his companions. The palace of Chasseneuil

must have been constructed by the architects of Aquitania. It seems highly probable that these architects only practiced Syrian traditions introduced by Syrian colonies, which at that time existed among the Merovingians in the center of Celtic Gaul, adjoining Aquitania.

About this time, that is, in the first years of the ninth century, Theodulph, bishop of Orleans, had erected a church whose general arrangement, as well as details, indicate a Byzantine origin. (See foot note, part I, chapter 16.)

The great Latin churches, covered with paneled wood, often had some of their parts vaulted. First to be mentioned is the rich basilica of Rheims, built during the reign of Louis the Debonnaire, by an architect named Rumald, with stones taken from the walls of the city. According to the chronicles of the time, quoted by Quicherat, this basilica had, up to the end of the tenth century, a pulpit carried on vaults resting against the façade. Then the cathedral of Auxerre, rebuilt in the tenth century, and covered with wood, had two vaulted chapels, giving to the church the form of the Latin cross. It is possible that the large churches built anterior to the year 1000 had the side aisles vaulted, as, for example, the old St. Peter's of Rome, a Roman church with four unequal naves, whose exterior side aisles were covered by vaults.

We might even believe that the greater part of the apses of the antique basilica were constructed of some kind of dressed stone. These apses, or hemicycles, were vaulted in quarter spheres, or half cupolas, whose simple construction presented none of the difficulties which arose when the architects of the ninth century, wishing to cover the great naves of the churches, used the Roman barreled arch and even the Byzantine cupola.

The cupola, however, has played a considerable role in the history of architecture, as has already been noticed in the first part of this work.

In the sixth century the Christians of the East adopted this mode of construction, which revolutionized architecture in that epoch by the systematic use of the cupola, the same as later the Christians of the West caused, in their turn, a revolution in the art of building by the use in churches of the continued

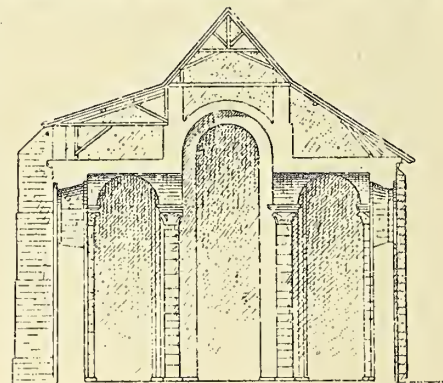


FIG. 133.

vaults maintained by buttresses and flying buttresses. According to Quicherat, the result was different in the two regions, because the point of departure was not the same. Suffice it to say, to characterize this difference, that the Orientals or Byzantines renounced from the first the basilica as a plan for sacred edifices. They transformed the church into a collection of polygonal or square halls, furnished at the same time by heavy walls, the necessary supports for the cupola. With this exception, they remained faithful during more than four centuries to the modes of adjustment and to the proportions of antique architecture.

In the first part of this work was shown the analogy, the similarity, even, which existed between the Byzantine monuments of the sixth century and the great Roman basilicas of the first centuries of the Christian era. Cupolas could be mentioned raised on the transepts of basilicas and covered with wooden roofs. These examples are rare, however, for they oftener built in the same place the lantern tower according to Gallican custom. To sum up what has been mentioned, it may be said, that if the Latins attempted, during the period of the Barbarians, to construct cupolas, and if the Gallo-Franks, in the eighth and ninth centuries, constructed vaults and cupolas of the most simple kind, they only made them according to either Roman or Byzantine traditions, and had not yet discovered the Romanesque formula, which, coming into existence at the end of the tenth century, became established during the first years of the eleventh and grew with such astonishing rapidity during the course of this century.

### CHAPTER VIII.

THE CHURCH OF ST. SAVIN (VIENNA)—THE CHURCH OF ST. BENOIT-SUR-LOIRE (LOIRET).

The vault is the chief characteristic of Romanesque architecture, properly speaking, and the Romanesque churches are covered under their roofs by vaults of different forms. In the second chapter of the

\* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.



second part was a description of the means employed by the first builders of the Romanesque period, means of different styles, using the vaults for side aisles and the sanctuary, leaving to the nave its basilica form with an open timber roof, a reminiscence of Roman traditions.

The first Romanesque buildings bore the marks of the hesitation and fear of the architects, but also the expression of their wish to solve the problem, difficult and complex, of general vaulting. The first and simplest of these problems was already solved by the use of ribbed vaulting with which to cover the side aisles. It remained to cover the central nave. To increase the probability of this covering lasting, the Romanesque architects only gave to the central nave a width about equal to the side aisles; they covered this nave with a barreled vault, and to offset the action of the thrust on the side walls they raised arches from the side aisles to the spring of the central vault, so that these vaults that covered the side aisles served to solidly counter-buttress the central ones.

The Abbey church of St. Savin was constructed toward the end of the eleventh century according to this ingenious system. The nave is formed by two rows of high columns of cylindrical courses, covered by naively sculptured capitals. They carry the arches formed by the intersections of the transverse and longitudinal vaults of the side aisles; on these arches, connecting the columns, rests the half-centered barreled arch of the nave. The section (Fig. 133) shows this arrangement. The walls rise longitudinally above the haunches of the central vault. These walls by their weight neutralize the effect of the lateral thrust and support the framework of the roof of the edifice.

If the plan once more recalls the plan of the Latin basilica by this expedient, the elevation dispels it by the suppression of the high

galleries and the windows arranged in the upper part of the nave. The nave is now no longer lighted except by light admitted through openings in the side walls, insufficient, especially in the north, to diffuse the light through the center of the edifice; later, however, the Romanesque builders solved this difficulty and found means of lighting the upper parts of the church.

The plan of the nave of St. Savin, as well as that of the transept, with its apsidal, recalls the basilica form of the Norman churches; the choir, however, has its peculiar arrangement; the sanctuary, in the form of a hemicycle or apse, marked by columns, and is sur-

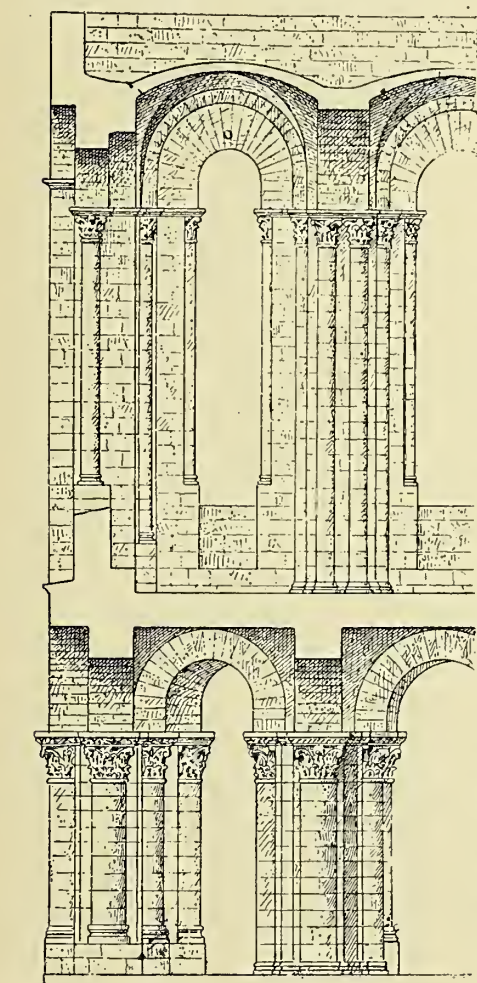


FIG. 136.

rounded by an ambulatory, vaulted like the side aisles of the nave and cantoned by five smaller apsidal, vaulted in quarter spheres, that of the center being larger than the others.

These apsidal are decorated in the interior and exterior with engaged columns; these are, in fact, ornamental buttresses, whose first appearance we have seen in the churches of Central Syria, in Qalb-Louzeh and Tourmanin, built in the sixth century. They were, however, to begin with, an antique reminiscence.

The origin of this arrangement of the choir has already been mentioned. According to Quicherat it was adopted anew in the fifth

century, the epoch in which the apsidal of the basilica became the Martyrium, that is, the place where the body of the patron saint reposed, and around which the lower galleries lead, offering an easy passage for the faithful.

The form of the choir of St. Savin might, moreover, be compared to that of Vignory, for they both presented a curious resemblance to the apsidal of the basilica of the Holy Sepulcher at Jerusalem, built by Constantine, from 325 to 336. Knowing the immense interest which was attached to the holy place from the earliest times of Christianity, it is easy to understand how the first church erected over the tomb of Christ must have exercised a considerable influence throughout all Christianity. It is copied in a great many monumental imitations, not only in single edifices, but in forms given to the sanctuaries of great Romanesque churches.

The narthex, or, according to Viollet-Leduc, the grand porch, built on the western façade of the church of St. Benoit-sur-Loire, dates from the eleventh century. It is composed of a quincunx of strong piers, open on three of their faces, while the Roman porches generally have closed walls, with exits only from the principal or small doors; it is covered by groined arches. It occupies a large space, and above is a high hall constructed like the lower one, and vaulted in the same way, but much higher. (Fig. 136.) The porch, or, rather, the magnificent narthex of St. Benoit-sur-Loire, which was built before 1030, according to certain authors, presents a superb example of general vaulting, remarkable for its rigorous construction, whose powerful framework yet shows the line of thought of the Romanesque architects. The importance of the thrust of the ribbed arches still being exaggerated, they multiplied the points of support in giving to them excessive dimensions, which were no longer in exact proportion with the vaults, filling the square spaces left between the ribs of the arches. The narthex of St. Benoit-sur-Loire is one of the most beautiful specimens of this kind of work, and one which gives a high idea of the skill of the Romanesque builders of the eleventh century.

## CHAPTER IX.

CHURCH OF ST. PAUL AT ISSOIRE—CHURCH OF NOTRE DAME LA GRANDE AT POITIERS—CHURCH OF ST. SERVIN AT TOULOUSE.

The churches of Auvergne, and particularly those of Orcival, of Notre Dame du Port at Clermont, and of St. Paul at Issoire, built about the end of the eleventh century, or in the first years of the twelfth, seem to have been the work of one architect, pursuing the same idea in different buildings; it would almost seem that they were built by the same workmen, as the marks of the master mason cut in the stone were seen in each.

The church of St. Paul at Issoire is perhaps the least ancient of all the churches just mentioned, but it presents the united characteristics of the Romanesque architecture of Auvergne; it marks the great progress achieved by the Romanesque constructors in their system of construction. (Fig. 137.)

The nave is formed of two rows of arcades and of two side aisles, the nave being crossed by bays in pairs and threes, by means of powerful ribbed arches. The barreled vault which covers the central nave is solidly counter-buttressed by half groined vaults.

The side aisles have two stories; the lower gallery is covered by ribbed vaults, placed between the lateral and transverse ribs of the arches. The upper gallery, opening onto the nave by little arched openings, resting on small columns, and lighted by windows cut in the outside wall, is covered by half barreled vaults springing from the side. The choir presents an arrangement similar to that of Vignory

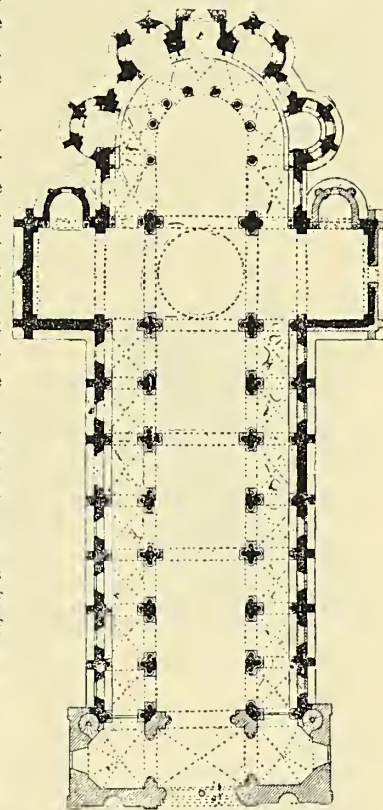


FIG. 137.



and St. Savin, with this difference, that the small apses contain windows, and that in the circular wall of the apse, between the small apses, windows have been cut, which largely light the passage around the sanctuary. (Fig. 139.)

The small apses are ornamented in the interior with buttresses in the form of columns, such as are arranged in St. Savin, and whose eastern or Syrian origin has been shown.

Below the choir a crypt, reached by two steps, was constructed in the sub-basement of the high church, the floor of whose choir is raised several steps above that of the transept. In the center of the transept, at the extremity of the nave and in front of the choir, rises an octagonal tower. It is carried on the four piers of the transept, the four large arches carrying corbels in the angles, permitting it to pass from the square to the octagon above a vaulted cupola, counter-buttressed, latterly by half barreled vaults, is surmounted by an

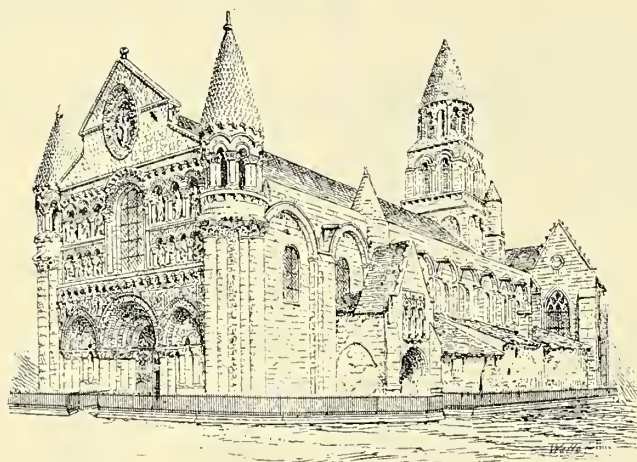


FIG. 141.

octagonal tower whose upper story is a belfry terminated by a pyramid of stone. This carefully planned church of Issoire is built of a coarse-grained stone in the heavy parts, and of limestone in the members ornamented with sculpture. Certain portions are ornamented with mosaics, or, more properly, polychromatic marquetry, which gives to the edifice a very elegant Oriental character, whose origin has been studied in the Latin church of St. Front.

The Romanesque architecture of Auvergne was very successful, which can be explained by the originality of its arrangement, and by its Oriental or Byzantine decoration. The effects of this architecture were soon manifest in the provinces of Nivernais, Limousin, of Poitou, and even Languedoc.

From the end of the eleventh century, or the commencement of the twelfth, the form of circular apses, with chapels jutting out from them, became general.

Poitiers, however, still preserves examples, and at Toulouse, one of the most beautiful of this kind is still to be seen.

The church of Notre Dame La Grande is one of the most curious of Poitiers, so rich in Romanesque monuments. In the interior it



FIG. 143.

presents three naves, equal in height, carved with barreled arches. The system of construction still shows the hesitation, and the constant efforts made by the Romanesque builders at the close of the eleventh century.

A large square tower, terminated in a circular story, crowned by a pyramid, rises at the intersection of the transepts. Its façade, covered with carving, shows the circular associated with the pointed arch, now used for some time, and which has been shown at St. Croix of Montmajor, erected in the first years of the eleventh century.

Two small towers, crowned like the high part of the central tower, and supported by clusters of heavy columns, ornament the angles of the western façade (Fig. 141).

The façade, in which Oriental reminiscences abound, is especially remarkable for its sculptural decoration, with which it is entirely covered, representing the fall and redemption of man. These carvings have a considerable iconographic interest as to idea and expression. One of them, placed above and at the right of the spectator in the side arcade, represents the baptism of the infant Jesus, a very unusual subject, and of which, probably, only one other example exists, on a golden shrine of the thirteenth century, preserved in the treasury of Aix-la-Chapelle.

The church of St. Sernin, in Toulouse, was commenced in 1060 by Raymond, canon of the cathedral of Toulouse, finished in 1096, and dedicated by Pope Urbani II after the council of Clermont, when his word determined the first crusade, and shortly before his death, which occurred in 1099. But the date of the construction must be that of the old church of St. Sernin, for, according to Viollet-Leduc, the one which exists today, and has been brought to completion through different epochs is of the twelfth century. It is one of those vast structures erected in the south of Europe by Romanesque builders (Fig. 143). The influence of the Romanesque architecture of Auvergne is as manifest in the plan as in the details of its construction; it is an enlarged copy of the churches of Clermont and Issoire.

(To be continued.)

### Development of Architectural Style.\*

BY GODFRIED SEMPER—TRANSLATED AND ARRANGED BY JOHN W. ROOT, ARCHITECT.

CONSIDERING the uniformity of these phenomena we may conclude, from the later and better known phases of the history of the country, that the same kind of disturbances prevailed in earlier ages. According to Xenophon, Cyrus, after distributing the provinces of his empire among his confidants, instructed them, before their departure to their posts, to follow his example, as far as possible, in all cases. They should first form a body of horse soldiers and wagoners from the Persians in their suit and from the inhabitants of the satrapy. They should ask the great landed proprietors of their district to frequently appear at the gates of the palace, there to receive the orders of their liege. The education of the noble children should be under their own control, following the example set in the king's own palace. The adults should frequently be invited to the castle for hunting parties. "He among you," Cyrus adds, "who in proportion to his means entertains the most wagons and controls the most numerous and best cavalry, may rest assured of my special favor. With you as well as with me let the honorary offices be ever occupied by the most worthy. Your table should be plentifully supplied, like mine, to show the splendor of the house, thus making your invitations a token of esteem to those who distinguish themselves. Keep inclosed parks and entertain wild animals therein. Before meals perform military exercises in common with your vassals, and never suffer your horses to be fed before working." Finally, he instructs them to ask those who partake of their honors to follow their example as they followed his. These instructions of the Persian state founder to his officers contain too much inherent truth to admit of any doubt as to their genuineness. I dwell longer upon this subject because it serves as an example to show how the legislator also acts as founder, or, at least, as reconstructor and upholder of one special building style, which in this case is based upon a series of strictly disciplined households. The complicated does not develop from the simple, but, on the contrary, the smallest residence is a reproduction in miniature of the royal castle. According to Xenophon, Cyrus also established the plan for the royal residence, which, in its essential features, agrees with the traditional arrangement of Asiatic camps.

The camps of Cyrus consisted of four square circumvallations; the middle one inclosed the royal residence, which was divided into many compartments, and contained the royal body-guard and the most faithful fellows in arms, as well as the servants. The next belt was occupied by the wagoners and by the cavalry. A third formed quarters for the light troops, while the other wall was defended by the heavy troops. By combining this ground-plan with an elevation where the whole towers up in terraces toward the center, we obtain the fixed type of all Chaldean-Assyrian castles known to us through the old authors and the latest discoveries. A fortified camp is the immediate result of the prevalent army system; it cannot be enlarged

\* Commenced in Volume XIV, No. 7.



and does not admit of interior development. It is a structure of defiance, depending upon itself and antagonizing the external world.

Whenever two Roman consular armies coöperated, they put up separate camps beside each other. This principle of agglutination governs the growth of all building styles based upon the fundamental idea of the fortified camp, like the Chaldean-Assyrian, the Persian, the Chinese, and even the Indian. It may be compared with the Turan languages, and is probably a Turan-Mongolian invention. By another system of fortification the camp is so arranged that it is subordinate to one controlling elevated object, which, as a key to the entire system of defense, completes the successive control of each defensive belt of the outworks by the one within it. The Chaldeans and Assyrians used a work of man for this highest point of support, the sky-aspiring terrace-tower, which at the same time served as a tomb for the deified grandsire of the dynasty, and also for the priests. This tower shelters the high castle terrace, which is also constructed of brick, and which carries on its terraces individual palaces designed with many offsets, loosely or not at all connected, but distributed irregularly, like oysters on a rock. This collective higher unity is surrounded by the outer rampart inclosing the entire dominion of the castle, like a bastion.

Besides this powerful apparatus of defense the objects which it protected must have their architectural representations. Forming the highest palladium there is, first, the above mentioned high towering temple cell on top of the terrace tower, then a multitude of princely diets and dwelling pavilions, half hidden and dispersed between the shady gardens and the tree-covered offsets of the palaces. Finally, in the outermost territory of the castle, we meet dwellings for liegemen and vassals, caravansaries for strangers, commercial bazars, and on the wide fields the tent camps of tributary trading Bedouins. Above all this variegated confusion, clad in brilliant colors, towers the imposing terrace castle. From elements like these, representing a considerable town in themselves, the command of a ruler suddenly created residences. Thus originated Nineveh, Babylon and Borsippa, whose immense extent and splendor, so highly praised by the ancients, may be explained in this manner. They then, in their entirety, form the highest multiple of the same principle of gradual predominance; the royal castle and its over-towering Belus temple, bearing the same relation to the whole as the highest terrace tower bears to the single dynastic castle.

The system had outlived itself; the Belus temple had already shriveled to a mere symbol, when it was given a new impulse, but in a different direction, by the Persian conquest. Certain fundamental features received a more defined expression; the principal one, however, through metaphorical application, was knowingly and willingly made the symbol of the difference existing between the overthrown old order and the new Persian one. The former fact is revealed by the sober dearth which, in Persepolis, on one side created the separation, and on the other side the subordinate relation to each other of the building-units forming the whole palace plant. They are all alike in principal form, being square colonnaded halls surrounded by outworks, augmented by many squares from the simplest and smallest, formed by four columns, up to the largest surrounded by hundreds. The second and more important of the above mentioned elements is the substitution of a natural point of support for the artificial one of the Chaldean-Assyrian defiance structure. The Rachmid mountain, with its pyramidal summit, against which rests the celebrated Persian castle, obviously contains a known reference to the Babylonian terrace tower. But this reference says, "We, the Achaemenides, are not heaven-defying sons of Nimrood, but pious worshipers of Ormuzd, whose fire-altar alone, established above us, makes us feel strong."

The originality of the Persian structure lay in its submission to a dominating natural elevation. Its light appearance, compared with the condensed masses of the Chaldean structure, is thus explained (want of time prevents a more thorough treatment of this point). But this adjustment to a natural object was not merely the necessary result of the removal of residences from the plains into mountainous regions; it was the product of a new culture. This is proven by Ecbatana, the old city of the Medes, which was also located in a mountainous country, but, according to reliable sources, followed exactly the Chaldean example. Even in locating Nineveh the people had the choice of all the mountain slopes near it.

The new idea did not prevail, however, until Darius became ruler. The sufficiently identified tomb of Cyrus proves this. It is a small model of the Babylonian tomb of Minus and absolutely opposed to the rock tombs of the Achaemenides. This example shows the leap and the recoil of the little after creator, man, in his work of art creation, and contradicts the above mentioned transition theory as applied to

building styles. At the same time it corroborates the assertion that new building styles always result from new culture ideas, originated by individual organizing minds. Let us now cast a rapid glance at the two great east Asiatic culture germs, China and India, which, although totally different from each other, have in common their original warlike constitutions. China lost her elasticity under the influence of an early, active caste of officers, who, with short interruptions, have maintained their power to the present time. Their political aim is the absolute preservation of that state of culture which is, according to their view, the ideal one, and which the Chinese empire had attained three millenia before our era, under the dynasty of the Jaos.

For this reason the palace of Yu, the last and greatest emperor of this dynasty, was made the type of Chinese building art. It consisted of a foreyard, used as a market, and containing the court room and the public scale, and of a record yard in the rear of the other, terminating in an elevated lawn upon which stood the modest private residence of the emperor. This consisted of a light roof, resting upon posts, and covered with roofing of straw or earth; weather had coated it with grass and moss, and time had bent it under its own weight. To such a dwelling is ascribed the origin of the curved, green-glazed roofs of China. Thus the building style of this country was fixed when the column was merely the trunk of a tree, the roof was of straw, the wall braided from bamboo, and a raised lawn with incline took the place of a walled terrace with magnificent stairs. Under such circumstances there could be no monumental development of this style, but it offers opportunities for splendid display, and there is a vast variety of possible combinations of these few elements. In such combinations they are, however, merely externally connected. Thus, here, too, political and legislative influence governs architecture; there is no trace of gradual organic development.

A remarkable similarity exists between these Chinese elements and the monumental styles of western Asia. The Chinese have the same circumvallations, the same terraces, ornamented with isolated building-units, though they are more symmetrically and systematically arranged; nor do we miss the sepulchral temple at the last point of support to the royal residence (at the imperial palace at Peking). Another curious fact is the fortress-like arrangement of the entire Chinese empire. This peculiarity dates back to the old Emperor Yu, who divided the empire into five concentric districts. The inner square was the emperor's private estate, while the outer belt formed the domicile of the outlaws. Between these were the districts for culprits, vassals and domains. This same figure has been, up to this time, the ideographic symbol of the Celestial empire. Bearing the same signification we find it also in the Babylonian letters (p. 125, line 4).

Before closing my remarks on China, I must mention the most despotic style reformator known to history. Toward the middle of the third century, a young hero from the Tschu-Tschin-Tschu-Huan-Ti, the Napoleon of the Chinese, reëstablished the empire, which was then divided into many kingdoms, and added to it by annexation the entire southern China, bordering Thibet and Cochin China. After annihilating the feudal states he began the immense task of completely transforming the law, legislation, and even the customs of the Chinese. With unheard of cruelty he exterminated the sect of the scientists, and with them all old books of law and annals of the empire.

His subjects, exasperated by so many innovations, he sought to occupy by gigantic building schemes. A waste hill on the river-side, not far from his residence, answered his purpose. He had all palaces of the annihilated vassal kings measured and exactly drawn. He then transported to his palace the valuables contained therein, including the widows and female slaves of the conquered rivals whom he had executed. Next he erected upon the above mentioned row of hills, and according to the plans he had procured, an immense palace, consisting of true copies of the destroyed royal palaces, partly occupied by their former pretty owners, with all the valuables belonging to them. These buildings, whose variety was harmonized by art, occupied an immense area. They were surrounded and connected by a colonnaded portico, a motive previously altogether unknown to the Chinese. This portico fronted a magnificent gallery of two stories, which gave shelter in all seasons. To these building operations, huge as they were, he subsequently added others, which might be considered examples of despotic insanity if we were not compelled to admire the cool calculation and sound political sense in all the undertakings and sayings of this emperor and his minister, Li-tse. Like Nero, he tore down his capital to the ground. The plan of the new city was an imitation of the star-spangled sky. Every fixed star



was indicated by a palace. Every prince and higher officer of the empire had to build upon a certain designated lot, displaying the greatest splendor in his edifice. There were nine hundred palaces, and distributed between them dwellings for seventy thousand families, which had been taken up and removed. His own palace was, naturally, more magnificent than all the rest, and was connected with the large harem, which I have already described, by inclosed halls. The greatest and probably most insane of his works is the Chinese wall, the length of which is from five to six hundred lienis. Even this Titan shook in vain the magic circle which inclosed China for five millenia. His spirit followed him to the grave; the old rules of custom, and the documents of the antiquaries were brought forth again from their hiding places, and maintain to this day their almost unimpaired authority.

(To be continued.)

## Economy in the Use of Steel in Building Construction.\*

BY W. L. B. JENNEY, ARCHITECT.

**F**IREPROOF work has become the rule rather than the exception in all important buildings. Our cities are growing rapidly, land in business centers becoming more and more valuable, and as a necessary consequence the buildings are built higher and higher.

Chicago has a very wise law, namely, that all buildings over 100 feet high shall be fireproof.

No hotel, theater or apartment house can be popular unless fireproof. Any business man would think himself inexcusably careless if he left a thousand-dollar bond over night in other than a fireproof vault, and yet we trust our greatest treasures, our wives and children, in very combustible buildings, and ourselves are often away on business for weeks at a time. Too many sad examples are recorded of the folly of such risks. It is pleasing to see that at length the importance of fireproof dwellings has come well to the front and is meeting with universal indorsement.

This extended use of iron in building, at a time when other demands are fully equal to the average, has advanced the price of raw material and encouraged the "combination" to advance the price of beams three-tenths cents per pound.

Evidently, it becomes the duty of the architect to study how he may economize and produce the desired results at least expense. An opportunity is offered in the use of steel instead of iron.

The I-beam is the important factor in fireproof construction. When we consider that the ultimate tensile strength of iron beams is but 48,000 to 52,000 pounds per square inch of sectional area, while that of steel is from 63,000 to 70,000, it is easy to see that if the section of the beam is such as to give the greatest practical value to the metal used, there is a saving in the weight of metal by the use of steel instead of iron, amounting to one quarter or even one-third.

As the price per pound is the same for steel and for iron beams the saving in money is enormous. For example, I have under construction a building which will require \$250,000 worth of steel beams. Should iron beams be used it would add at least \$50,000 to the cost, with no advantage, but rather with the disadvantage of the additional load on the columns and foundations. To effect this saving, the architect must base his calculations on a tensile strength of say, 60,000 pounds per square inch, and must be sure he obtains it in the steel.

To be certain of getting this result the specifications must not only demand it, but also that test bars be taken from each "blow" or charge of the converter and tested in the presence of an agent appointed by the architect; and that no beams will be received unless up to the required strength. That it is not difficult to obtain this strength is seen from the "test sheets," showing the testing of 276 "blows" of the converters at the mills, made by an engineer from my office. Of the 276 tests only thirty are below 64,000 pounds and the lowest is 61,500.

As the quality of the steel improves these figures enlarge. I think that even now we might insist upon a minimum tensile strength of 64,000 pounds per square inch, without any increase in the cost to the consumer.

There are other tests required, for example, to insure that the beams shall not take a permanent set if moderately overloaded; that the beams can be punched without splintering and bent without breaking. After all the physical tests are satisfactory, the beams

must be inspected for surface defects, and none but perfectly rolled, straight beams must be received.

It is true that such careful, thorough inspection is expensive to the architect, but the saving is so great that there is no other detail in an architect's practice by which he can save so much money for his client, and it should never be neglected.

There has been much discussion of late as to the relative value of rolled steel columns and cast-iron columns. In bridges the cast-iron has entirely passed out of use. In a building to be filled with heavy running machinery the architect should insist upon rolled steel columns, but for an office building, a store, or a warehouse, when the load is steady, it becomes a question of cost.

For cast-iron columns the architect must insist that from each heat of the cupola two test bars be cast, each of which is tested by placing it on supports and loading in the center with a weight proportionate to the size of the bar and the distance between points of support. Should the bars break, the metal is inferior and not acceptable. Each column should be drilled in two directions for measuring the thickness of metal, and then careful examination made for surface defects. Cast-iron has the disadvantage of being liable to internal defects that the most rigid inspection might fail to detect, and consequently the columns are made heavier than otherwise would be necessary. Even with the disadvantage of greater weight the "proposals" for furnishing cast-iron columns are at present usually less than for rolled steel. To avoid the uncertainty which forces the architect to specify cast-iron columns one-quarter heavier than he otherwise would do, some of the leading foundries are now considering the policy of adding to their plant a large testing machine, in which each column may be tested up to double the load which it is calculated to bear. Any foundry that has such a machine can command the best work at the highest price, for it will save to the owner twenty-five per cent at least in weight of metal now considered necessary for safety.

These are but a small portion of the engineering features that the demand for tall, expensive, fireproof buildings has introduced into a Chicago architect's office.

## Evaporation of the Water Seal of Traps.

*Editors Inland Architect:*

In your issue of November, 1889, you quote an advocate of trap venting as saying of ordinary vented S traps, "If the traps are filled even once in two months they will keep their seal intact." Most persons now agree that S traps, which are back vented in the ordinary manner, require refilling as often as once a fortnight to preserve their seals. Official circulars issued to the public by the Brooklyn board of health and other authorities have recommended refilling as often as once a fortnight, and later circulars have urged refilling *once a week* in unoccupied rooms and buildings. My own experiments show that even shorter intervals between filling are needed for absolute security.

It is, therefore, clear, and admitted by its most persistent advocates, that the system of back-venting is a very dangerous one. Its original object was to afford security without constant watch. It is now found that it totally fails in this respect, and that the back venting of most ordinary traps involves the necessity of a degree of watchfulness and attention which experience and common sense show us they will never receive.

My experiments on the rate of seal reduction produced by back venting were made with the greatest care, and show a more rapid loss than is generally supposed to take place. These experiments were made in 1884 for the Boston city board of health, and were first published in the *American Architect and Building News* of June 7, 1884. If this report be studied, it will be seen that every precaution was taken to secure trustworthy results.

Although the experiments on siphonage were made during the same year, and on the same system of piping with those on evaporation, it will be seen by studying the drawings and text of this report, that the former in no way interfered with the latter. No experiments on siphonage were made while the water stood high in the traps during the tests for evaporation, and no disturbance of the water seals was made by this, or any other cause, during the evaporation tests.

It would have been exceedingly careless, and totally unnecessary, to allow any such disturbance. Moreover, most of the experiments on evaporation were made, as shown, on a stack so connected with the rest of the system of piping that such disturbance would have been impossible, even had we not carefully closed the inlet or house side of the traps. We found that a warm flue caused the back-vent pipe to evaporate enough of the water from the seal of the trap to

\*A few paragraphs on this subject having appeared anonymously in the *Chicago Tribune*, and, as such an article, to be of value, must have the stamp of authority, Mr. Jenney has, at our request, reviewed and enlarged it.—EDITORS INLAND ARCHITECT.



break it in less than a week, and I am confident that this often happens in practice.

How short-sighted and foolish is it to endeavor to throw discredit on these experiments which were conducted with the greatest care and honesty, and witnessed and subscribed to by well-known and impartial experts; and to argue that because other experiments, made under different conditions, showed a somewhat slower rate of evaporation, that, therefore, cases could never occur in which the more rapid rate might be encountered in practice.

It is likely that the public will very soon awake to a sense of the importance of investigating this matter for themselves. Their boards of health will then find that, with a very small outlay, they can obtain the truth, and that a vast amount of unnecessary complication and expense can be saved in plumbing, and at the same time greater security be obtained.

When we consider the well-known unreliability of the vent-pipe in many ways, and the frequency with which it is found totally closed by grease, it becomes something worse than folly to recommend the public to place implicit reliance upon it.

Respectfully yours,  
J. P. PUTNAM.

**The National Association of Builders.**  
THE fourth annual convention of the National Association of Builders will take place at St. Paul, Minnesota, on January 27, 28 and 29, 1890. The following circulars of information have been issued by the secretary and show that the work of preparation is, as usual, thorough and comprehensive.

CIRCULAR NO. 3.  
ARRANGEMENTS.

Arrangements made by the Contractors' and Builders' Board of Trade of St. Paul, for the accommodation and entertainment of delegates and visitors while in that city are as follows:

1. Accommodations have been engaged at the Hotel Ryan, corner Sixth and Robert streets, for all delegates and visitors, at a uniform rate of \$3 per day. Parties sending names in advance will find rooms assigned on arrival.
2. Reception committees will be in attendance at railroad stations on arrival of trains, to receive guests and convey them to Hotel Ryan.
3. In deference to the urgent request of the Executive Committee of the National Association, no particular entertainment will be offered to visitors until after the close of the convention on Wednesday afternoon.
4. On Wednesday evening the Contractors' and Builders' Board of Trade of St. Paul will offer to the delegates to the national convention and other visitors a banquet at the Hotel Ryan.
5. On Thursday all delegates and visitors are invited by the Contractors' and Builders' Board of Trade to participate in the ice carnival; the day to be spent in sleighing, tobogganing, snow shoeing and sight-seeing of various kinds, and the evening in witnessing the first bombardment of the ice palace, arrangements to view which have been specially made so that all visitors will be comfortably provided for. The bombardment will close the festivities on the part of the St. Paul builders.

The Builders' Exchange of Minneapolis extends to all delegates and visitors to the fourth annual convention a most hearty greeting, and claims the privilege of showing them, ere they leave for their homes, the beauties and attractions of the "Twin City."

On Friday morning (at an hour to be announced), visitors are requested to leave St. Paul for Minneapolis on special train. On arriving at Minneapolis (trip occupies but twenty minutes), conveyances will be taken, and a tour of the city made, covering all points of interest, including the great flouring mills which are known as the largest in the world.

At 3 p.m. the visitors will be entertained at a banquet at the West Hotel, and in the evening at a performance at the Grand Opera House. Saturday morning—*Bon voyage*.

Issued by order of the  
W. H. SAYWARD, Secretary. EXECUTIVE COMMITTEE.

CIRCULAR NO. 4 (a).  
REGULATIONS FOR THE CONVENTION.

*Place of Meeting:* In Chamber of Commerce, corner of Sixth and Robert streets, diagonally opposite the Hotel Ryan.

*Time of Sessions:* Monday morning at 10 o'clock; after that, as convention may vote.

*Resolutions:* Resolutions must be presented in writing, in duplicate, both copies signed by the party presenting the same. When possible they should be sent to the "Committee on Resolutions," in advance of the convention.

*Amendments to Uniform Contract:* Any delegate having amendments to offer on the uniform contract must present them to the "Standing Committee on Uniform Contract," who will consider the same and give hearings to those who may desire to be heard. Amendments should be offered as early in the convention as possible, to permit of appointments for hearings.

*Voting:* All votes (unless otherwise ordered) must be announced by the chairmen of delegations.

*Debates:* The Executive Committee have endeavored to specially select one person to open the discussion on each subject offered for

consideration, and one person to follow in opposition; the remaining time devoted to each particular subject will be equally divided between the exchanges represented in the convention, each delegation being called upon to express its views.

*Papers:* The importance and number of subjects pressing for discussion have made it imperative that no papers be read at the regular day sessions, but the committee hope to arrange evening sessions to hear several papers of special interest which have been prepared at their request.

Issued by order of the  
W. H. SAYWARD, Secretary. EXECUTIVE COMMITTEE.

CIRCULAR No. 4 (b).  
PROGRAMME OF PROCEEDINGS.  
MONDAY, JANUARY 27, 1890.  
MORNING SESSION.

1. Opening address, by the president.
2. Appointment of Committee on Credentials.
3. Recess for presentation of credentials.

- AFTERNOON SESSION.
1. Report of Committee on Credentials.
  2. Roll call.
  3. Offering of resolutions.
  4. Appointment of committee to report time and place of next convention, and to nominate officers for the coming year.
  5. Report of secretary.
  6. Report of treasurer.
  7. Report of standing committees.
  8. Report of special committees.

TUESDAY, JANUARY 28, 1890.  
MORNING SESSION.

1. Discussion of the question, "Shall the National Association recommend the adoption of the eight-hour day in the building trades, and, if so, when and under what conditions?"

(To be continued at morning session of Wednesday.)

- AFTERNOON SESSION.
1. Discussion of the question, "The Lien Laws—Shall the National Association recommend that they be abolished?"
  2. Discussion of the question, "Sub-contracting—Shall the National Association recommend that it be encouraged?"

WEDNESDAY, JANUARY 29, 1890.  
MORNING SESSION.

1. A portion of this session will be reserved for continuation of eight-hour discussion, if necessary. If not needed for that purpose, other subjects that have been presented will be introduced, a list of which will be distributed as soon as possible.
2. Discussion of the question, "Manual Training—Shall the National Association recommend its introduction in the public schools?"

- AFTERNOON SESSION.
1. Report of the Committee on Resolutions.
  2. Report of the Committee on Time and Place of next Convention, and on Nomination of Officers.
  3. Election of officers.
  4. Naming and election of officers.
  5. Unfinished business.
  6. New business. (Amendment to constitution.)
  7. Adjournment.

Issued by order of the  
W. H. SAYWARD, Secretary. EXECUTIVE COMMITTEE.

Government Plans and Specifications.

THE following letter from the Treasury Department, published in the *Builders' Exchange*, explains the position of the supervising architect on the subject of furnishing plans to various Builders' Exchanges:

TREASURY DEPARTMENT,  
OFFICE OF THE SUPERVISING ARCHITECT,  
WASHINGTON, D. C., October 29, 1889.

William H. Sayward, Secretary of National Association of Builders:

SIR,—I have to acknowledge the receipt of your letter of the 26th ultimo, renewing the request that plans and specifications for work on public buildings be furnished to offices of the several building exchanges.

You have misunderstood office letter of the 27th ultimo, in regard to the subject.

The department would send the papers you desire, if it were practicable, but is unable to furnish copies of plans and specifications of work in hand to all builders' exchanges, the supply being used for distribution to those who are assured bidders, upon their application for the same, and it becomes necessary to reserve the plans and specifications for such purpose.

The only expenditure authorized for securing competitive proposals for work, etc., for public buildings, is by publishing advertisements; and to accommodate those who state their intention to submit proposals, the department usually furnishes them, for brief periods, with plans and specifications, and places plans and specifications in the office of the builders' exchange nearest the location of the building



on which the work is to be done, in the office of the superintendent of the building, and in this office, for their use.

The builders' exchanges, through the architectural magazines and journals, in addition to the advertisement in the daily newspapers of the places in which the building is located, have ample notice that proposals are desired, and all who wish to submit bids can find full opportunity for using the plans and specifications under the present office method.

Respectfully yours,  
J. H. WINDRIM, *Supervising Architect.*

### Ontario Association of Architects.

THE first annual convention of the Ontario Association of Architects was held at the Canadian Institute, Toronto, November 20 and 21. President W. G. Storm, one of the oldest practitioners in Toronto, occupied the chair; S. H. Townsend was secretary.

The following members were present: M. B. Aylesworth, E. Burke, R. W. Gambier-Bousfield, A. E. Boulton, Joseph Connolly, S. G. Curry, Frank Darling, D. B. Dick, R. J. Edwards, J. A. Fowler, H. B. Gordon, Charles J. Gibson, John Gemmell, George W. Gouinlock, William R. Gregg, Mark Hall, George R. Harper, Grant Helliwell, G. W. King, Henry Langley, F. C. Law, E. J. Lennox, W. J. Mallory, Robert Ogilvie, Almond E. Paull, Herbert G. Paull, James Smith, W. J. Smith, W. L. Symons, Henry Simpson, W. G. Storm, S. H. Townsend, Charles F. Wagner, Mancel Wilmott, H. J. Webster, A. Frank Wickson, E. A. Whitehead, of Toronto; Alfred McCall, D. Ewart, John W. H. Watts, of Ottawa; George F. Durand, H. C. McBride, S. Frank Peters, of London; James Balfour, W. A. Edwards, of Hamilton; Joseph W. Powers, of Kingston; A. A. Post, of Whitby; H. F. Duck, of Ridgetown; G. S. Kinsey, of Port Elgin; James L. Wilson, of Chatham; J. E. Velcher, of Peterborough; Thomas Cuthbertson, Alexander White, of Woodstock.

The features of the convention were the consideration and discussion of a proposed act of incorporation and a paper on professional ethics read by Mr. E. Burke, of Toronto, who quoted liberally from O. P. Hatfield, of the American Institute, and J. G. Cutler, president of the Western New York State Association.

Papers were read by D. B. Dick, on "The Orange (N. J.) Sewage Form"; by H. P. Gordon, on "Foundations," and by R. W. Gambier-Bousfield, on "Office Management."

The following officers were elected: President, W. G. Storm; vice-presidents, George F. Durand, London; James Balfour, Hamilton; King Arnoldi, Ottawa; secretary, S. H. Townsend; treasurer, D. B. Dick; directors, E. Burke, Toronto; Joseph Powers, Kingston; S. G. Curry, Toronto; D. Ewart, Ottawa; J. E. Belcher, Peterborough; auditors, H. Langley and W. R. Gregg.

### Chicago Carpenters' and Builders' Association.

THE regular annual meeting of the Carpenters' and Builders' Association was held at the Exchange, January 9, and was attended by about seventy members. Several amendments to the by-laws to reduce the number forming a quorum, and abolishing the meetings during the summer months, were presented, and the following officers elected: President, William Goldie; vice-president, J. W. Cassell; secretary, James John; treasurer, Peter Kauf; trustees, for one year, William Mavor; for two years, J. F. Tregay, Oliver Sollitt and J. W. Andrews.

The business meeting then adjourned, and the members went to the Sherman House, where a banquet was prepared. There were seated around the tables the following members and guests:

Oliver Sollitt, J. G. McCarthy, W. P. Ketchum, R. C. McLean, J. F. Tregay, Architect Henry P. Harned, William Hearson, Architect O. J. Pierce, Rev. J. P. Brushingham, Architect W. W. Boyington, D. G. Phimister, E. Earnshaw, Frank C. Schoenthaler, Charles W. Gindele, D. V. Purington, J. W. Cassell, Duncan Cameron, William Jenkinson, E. Hoganson, H. G. Knickerbocker, Frank Koapke, Vildmar Lund, F. E. Walter, E. A. F. Hart, E. F. Walsh, William Goldie, W. Irving Clark, John Reese, J. W. Andrews, S. Pickett, John Rawle, V. T. Lund, Alexander Shannon, of Topeka, Kansas; Francois Blair, J. C. Prince, Thomas Burns, James John, William Mavor, Alexander Gordon, Walter T. Clark, George Wakeham, E. Isbell, Alexander Campbell, H. H. Drew, G. R. Gillsdorf, E. W. Gillsdorf, R. B. Willis, Eli Payne, J. Steinmetz.

The music was by Campbell's soloists, and Messrs. J. P. Jones and E. Oldfield sang several duets.

The first toast, "The Carpenters' Association," was ably responded to by President William Goldie, who spoke hopefully of the future of the trade, and earnestly regarding the necessity for trade schools.

Architect W. W. Boyington spoke of the "City of Chicago—the place for the World's Fair." Mr. Boyington said Chicago was a toast no one could respond to successfully, and when it got the world's fair it would be still more impossible, as no one could foretell the future of the city. Referring to the carpenter and joiner of fifty years ago, the speaker made a strong plea for well-trained apprentices in the trades.

The remainder of the programme was responses to toasts, "The Builders' Exchange," by D. V. Purington; recitation by D. G. Phimister; "The Masons' and Builders' Association," by Charles W. Gindele; "The Pulpit," by Rev. H. P. Brushingham; "The Press," by R. C. McLean, editor of THE INLAND ARCHITECT; "The Ladies," by J. G. McCarthy. The orchestra played and the guests sang "Auld Lang Syne," and everybody went home feeling that this, the first banquet of the Carpenters' Association, should be a permanent feature of the annual meeting in future. The entire arrangements were successful and a credit to the committees of arrangement and reception that had them in charge.

### Association Notes.

#### ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

The postponed annual meeting of the association was held on December 15. President W. W. Clay in the chair, and the following members present: John W. Root, D. Adler, L. H. Sullivan, H. B. Hill, J. L. Silsbee, Clinton J. Warren, Samuel A. Treat, L. D. Cleveland, Clarence L. Stiles, Alfred Smith, S. M. Randolph, W. W. Clay, Louis J. Schaub, George Beaumont, O. J. Pierce.

After the usual lunch had been served the president stated that as the usual publication of the minutes had been made in THE INLAND ARCHITECT, the reading of the minutes would be passed and announced the purpose of the meeting, stating that, according to the consolidation of the Western Association with the American Institute, the question of the consolidation of the local chapter of the Institute with the state association should be considered. The secretary read the following letter from the secretary of the Chicago Chapter A. I. A.:

O. J. Pierce, Secretary:

At the regular annual meeting of the Chicago Chapter A. I. A., the following resolution was adopted:

"Resolved, That it is the sense of this chapter that the consolidation of the Chicago Chapter A. I. A. with the Illinois State Association, take place as rapidly as consistent with the reorganization of the American Institute, and the Executive Committee is hereby instructed to take such steps as will lead to such consolidation and that the secretary be instructed to notify the Executive Committee of the State Association of this action." W. A. Otis, Secretary C. C. A. I. A.

Mr. Adler said that whatever was done with the Chicago Chapter, the present constitution and by-laws of the State Association should be preserved, as they were based upon the constitution and by-laws of the Western Association, and the new constitution and by-laws of the Institute was almost an exact reproduction of that and offered a resolution which was not acted upon, directing the present executive to be retained, the name of the Chicago Chapter A. I. A. adopted, and to confer with the Executive Committee of the Chicago Chapter regarding a basis for consideration.

Mr. Beaumont spoke in favor of the body being a state rather than a local chapter, as in case of legislative enactments this would be valuable.

Mr. Hill favored delaying action and allowing the Executive Committees to meet and form a general plan, and report upon the same.

Mr. Treat spoke in the same vein, favoring delay and subsequent action, and in favor of one chapter, and that a state organization.

Mr. Clay suggested that the regular election of officers take place, and the new executive committee take the matter up.

Mr. Root said that a meeting of the Executive Committee of the new American Institute would take place about the first of January, and the matter of state associations would be taken up and a general plan for the reorganization of state associations into chapters would be formulated. There were many questions involved that had not yet been decided: Whether all members of chapters must belong to the Institute, the jurisdiction of each chapter, local or state, must be decided, etc.

Mr. Treat moved that the association proceed to the election of officers for the ensuing year.

On motion of Mr. Adler, the secretary was directed to cast a ballot for the association for Mr. Clay as president. The remaining officers were reelected in the same manner, as follows: President, W. W. Clay; first vice-president, Wm. Holabird; second vice-president, Frederick Baumann; secretary, O. J. Pierce; treasurer, C. M. Palmer; executive committee, S. A. Treat, L. H. Sullivan, George Beaumont and C. L. Stiles.

The subject of consolidation was again taken up, and Mr. Sullivan offered the following resolution:

Resolved, That the Executive Committee of the State Association meet that of the Chicago Chapter, and be given full discretionary powers, and directed to arrange for consolidation of the two bodies, retaining the present State Association constitution and by-laws, and form as a State Chapter of the Institute under the name of Illinois Chapter.

The resolution was adopted.

Some discussion regarding permanent quarters for the Association followed, and it was intimated that rooms could be procured in the Art Institute Building, and in this event all members of the Association would be made members of the Art Institute. Mr. Root stated that some private discussion of the matter with members had developed that the point of cost would be made a secondary consideration by individual contribution, if necessary.

On motion, the consideration of permanent quarters was added to the work of the Executive Committee, to report at the next meeting, and the meeting adjourned to January 20, 1890.

#### DETROIT ARCHITECTURAL SKETCH CLUB.

At the last regular meeting of the Detroit Architectural Sketch Club, the following officers were elected for the ensuing term:

President, J. A. Hackett; vice-president, W. B. Stratton; secretary, C. A. Fullerton; treasurer, H. C. Stevens; executive council, A. Kahn, Maxwell H. Grylls, Geo. Harvey.

The club have started a movement to organize the several art societies in the city into an association. One result of such a union will be large and permanent quarters, a large library of art journals, etc.

#### NEW YORK ARCHITECTURAL LEAGUE.

The annual exhibition of the New York Architectural League is unusually interesting this year as an exhibition, but the drawings sent in competition for the gold and silver medals are not as numerous as in former competitions. The subject, which was "A Gateway for the World's Fair," may have been less interesting to draftsmen, or the home work of the clubs in different cities may have prevented draftsmen from working out the problem. In all there were five designs hung, Julius Harder, of New Haven, receiving the gold and



Claude F. Bragdon, of Rochester, the silver medal. The other competitors were Charles H. Israels, of New York; Maxwell H. Grylls, of Detroit, and E. T. Boggs, of Philadelphia. Notable among the loan exhibits were the fine embroideries of Mr. Henry G. Marquand, the representation in glass of Bolticellio's Madonna by the Tiffany Glass Company, and the exhibition of work by the Columbia College architectural students.

#### NEWARK ARCHITECTURAL SKETCH CLUB.

The Newark (N. J.) Architectural Sketch Club, after a preliminary meeting, met for permanent organization, December 14, 1889. A constitution and by-laws were adopted, and the following officers elected:

President, W. Frank Bowers; vice-president, J. C. Swinnerton; secretary, H. A. Hickok; treasurer, W. C. Hudson. The executive committee consists of F. S. Sutton, A. E. Hudson, W. G. Smith, L. A. Virtue and E. K. Taylor, together with the officers.

It is intended, in addition to the usual monthly competitions, to make a special feature of regular class work throughout the year. This will consist of courses in constructional work, freehand drawing, water-color work, plumbing, architectural history, etc. The courses will be under the direction of specialists in the various branches who are club members. Applications for membership will be received by the secretary, whose address is 762 Broad street, Newark. The club expects to have permanent quarters soon, which will be open every evening to members.

#### CINCINNATI ARCHITECTURAL CLUB.

In commenting, last month, upon the Cincinnati drawing exhibit, the result of the prize awards was not given. The judges were Architects Alfred Stone, C. A. Cummings, Zach. Rice, W. S. Wicks and S. A. Treat, who awarded the gold medal for the best club exhibit to the Philadelphia T Square Club; the Anderson silver medal for the best individual exhibit to C. A. Blackall, of Boston; the Cincinnati Builders' Exchange silver medal for the best water-color perspective to A. Howard Walker, of Boston; the special gold medal for the best detail drawing to A. R. Ross, of New York, with an honorable mention to E. M. Probst, of New York. Because of the inadequacy of the drawings submitted, the Wayne hardware medal was not awarded.

### Mosaics.

THE Tacoma Chamber of Commerce are inviting architects to send competitive drawings for a building to cost \$250,000. Three prizes of \$500, \$300 and \$200 are offered, and the architect who may be selected to receive the regular schedule rates of the American Institute of Architects.

A NEW journal, devoted to paper, stationery and book interests, called *Our Trade*, has been started in Chicago. The first number at hand contains thirty pages of reading matter, well written and printed. It gives evidence of occupying a distinctive field, and that it will prove a valuable exponent of the lines it represents. Cyrus E. Pratt is business manager and W. A. Ballard, editor.

THE collection of paintings by Vassili Verestchagin, the great Russian painter, soldier and traveler, is again on exhibition in Chicago. This time it is being held in the art gallery of the Exposition Building. The paintings are 121 in number, and there is also a wonderful collection of carpets, tapestries, rugs, etc., which the traveler has collected. The collection seems to attract quite as much attention as upon its former exhibition at the Art Institute.

MR. J. P. DUGGER, of Chicago, long and favorably known as a steam-heating expert, and recently connected with the Chicago branch of the steam pump house of Henry R. Worthington, has gone to St. Joseph, Missouri, to take charge of the western branch of the Hexteun Steam Heating Company, located there. The architects of the West will find Mr. Dugger a genial acquaintance and a live business man, whose knowledge of steam heating is always at their service.

ON December 30, Architect W. W. Boyington, of Chicago, celebrated his golden wedding at his residence in Highland Park. As one of the oldest architects in Chicago, both architects and contractors took occasion to express their friendship by making a suitable present. A special train was chartered by members of the Exchange, and a box containing one hundred and twenty \$5 gold pieces was presented, with the following letter:

CHICAGO, December 30, 1889.

W. W. Boyington, Esq.:

DEAR SIR,—This event in your life must be truly gratifying to you, as it is one that it is the privilege of but a few to enjoy. It being your good fortune to attain it, it is a source of great pleasure to your many friends, and we among others desire to offer to you our sincere and most hearty congratulations on this the fiftieth anniversary of your wedding.

To one who has erected so many enduring monuments while living, it is, indeed, a source of pleasure to know that in spite of all the trials and vicissitudes of life (of which you have had a fair share) you should be spared to so ripe an age, and as far as it seems possible, enjoy the happy reflections consequent on a well-spent life, and we sincerely hope that you and your good wife may still be spared for many years to come.

In behalf of a few of your many friends among the members of the Chicago Builders' & Traders' Exchange, and in the absence of being able to express our appreciation for you as a man in a more suitable form, in commemoration of this notable event, we ask you to accept from us this small box containing coin of the realm. We beg that you will receive it with our best wishes for your future happiness, and that the many future days which you and your dear wife may spend together may be like the coin—truly golden.

Though Architect Boyington has finished fifty years of married life and practiced his profession in Chicago many years before the great fire, he is still active and not considered at all "old" by those who have worked with him in twice building the city.

### Our Illustrations.

Foreign sketches, by Thomas H. Mullay.

Tenth District School; Plympton & Trowbridge, architects, Cincinnati, Ohio.

Sketch for North Denver M. E. Church; Kidder & Humphreys, architects, Denver.

Residence for Miss M. Wilson, Park Ridge, Illinois; Treat & Foltz, architects, Chicago.

Station at Charlotte, N. C., for K. & D. R. R.; W. M. Poindexter & Co., architects, Washington, D. C.

Houses for the Hubbard estate, corner Elm street and Dearborn avenue, Chicago; Treat & Foltz, architects.

Double house for Mr. A. F. Shuman, East End avenue, near Jackson Park, Chicago; Maher & Corwin, architects.

First prize, gold medal, design by Albert R. Ross, New York. Architectural rendering of an original detail, competition for draftsmen under twenty-one years of age, Cincinnati Architectural Club, in connection with the recent National Exhibition of Drawings.

Business building for Messrs. Bullene, Moore, Emery & Co., Kansas City, Missouri; Van Brunt & Howe, architects, Boston and Kansas City. Now in process of construction; has a frontage of 120 feet on both Walnut street and Grand avenue, and 242 feet on Eleventh street. It is six stories high on Walnut street, and five stories on Grand avenue. It is built of St. Louis pressed brick, and trimmed with red sandstone, and will be used for all the purposes of a wholesale and retail dry goods business. Its interior construction is of wood and iron of very heavy description, the wood construction being fireproofed by approved methods. There will be six elevators, four for passengers and two for freight, and the building will contain its own heating, electric light and power plants. One very unusual feature in this construction is its open promenade, or colonnade, on the three principal streets. In these cases the piers are entirely isolated, and the glass screen of the store front is recessed 6 to 10 feet from the building line, while above the upper stories the building is carried over to the property line, and continued on that line, thus making a covered promenade for shoppers, where they may inspect all the goods displayed in the windows, under cover and off the public sidewalk. There will be upward of 450 feet of showcase window for this display of goods, and it is believed that this feature will prove one of great interest, and that, on account of the immense size of the openings, it will not materially affect the lighting of the building. The building has been treated rather freely in Romanesque, its isolated character enabling the architects to light it abundantly, and, at the same time, leave a very considerable amount of wall space undisturbed by detail and in architectural repose. A considerable amount of terra-cotta and molded brick has been used, and in the treatment of the colonnade heavy copper has been employed. The windows will be glazed with plate glass throughout, and the building will cost, when equipped and ready for occupation, not far from \$450,000.

#### PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence of Mr. H. K. Needham, Chicago; Burnham & Root, architects.

Residence of Mr. H. B. Nye, Cleveland, Ohio; C. F. Schweinfurth, architect.

Residence of Mr. C. F. Brush, Cleveland, Ohio; George H. Smith, architect.

Residence for Mr. Hugh J. McBirney, Chicago; Burling & Whitehouse, architects.

Double residence for Dr. Z. T. Dellenbaugh, Cleveland, Ohio; C. F. Schweinfurth, architect.

Residence of Dr. E. M. Hale, corner Prairie avenue and Twenty-second street, Chicago; Cobb & Frost, architects.

Entrance, The New York Life Insurance Company's building, Kansas City, Mo.; McKim, Mead & White, architects, New York.

### Synopsis of Building News.

**Akron, Ohio.**—Architect Jacob Snyder: For the B. F. Goodrich Company, office building, 60 by 62 feet; brick, with all modern conveniences; cost \$18,000.

**Atlanta, Ga.**—Architects Bruce & Morgan: For the Fulton County Court House, a three-story annex, 54 by 45 feet; pressed brick, slate roof, steam heating; cost \$20,000. For D. E. Converse, two-story residence, 60 by 80 feet; cost \$12,000. Also a family hotel, four stories, 80 by 110 feet; cost \$20,000. Also for Converse College, Spartanburg, South Carolina, improvements and additions, 80 by 200 feet; cost \$25,000.

**Barnesville, Ga.**—Architects Bruce & Morgan: For the Gordon Institute, a three-story frame addition, 60 by 90 feet; cost \$10,000.

**Buffalo, N. Y.**—Architect E. H. Kelly is preparing plans for a residence for J. H. Ullenbruch, 26 by 70 feet; brick and frame construction; gas fixtures, electric bells, hot air heating, etc.; cost \$9,000. Also a dwelling for Peter Darker, 28 by 44 feet; cost \$6,000.

Architect C. R. Percival has plans for a residence for Mrs. Susan Newman, 30 by 67 feet; frame, with all conveniences; cost \$5,000.

**Chicago, Ill.**—Architect Clinton J. Warren is making plans for a handsome residence, to be erected on Michigan avenue; granite all round; passenger elevator, electric light, hot water heating, marble floors and vestibules, and mosaic floors, etc.; cost \$90,000.

Architect F. B. Townsend: For F. W. Campbell, twelve dwellings, to cost \$60,000; furnaces, bathrooms, stained glass, etc.; making plans. Also letting contracts for twelve dwellings, to cost \$60,000, for the same owner.

Architect John Otter: For Mr. Akland, a four-story flat building; \$25,000; Bedford stone front, bathrooms, mantels, stained glass, etc.; making plans.

Architect F. R. Schock: For Robert A. Hintze, a two-story frame residence at South Park; stone basement; hot water heating, mantels, bathrooms, stained glass, etc.; preparing plans.

Architect Louis Martens: For Frank Linsonbarth, remodeling two houses into apartment building; \$8,000; bathrooms, mantels, stained glass, etc.; making plans. Working on plans for an eight-story apartment house, to cost \$80,000; steam heat, elevators, mantels, entirely fireproof; electric light, marble vestibules and floors, etc.; Kasota pinkstone front. For Mr. George, just started plans for a two-story dwelling; Bedford stone front, furnace, mantels; stained,



plate and beveled glass. Just finished up sketches for a four-story store and flat building, size 85 by 65 feet; cost \$26,000; Kasota pinkstone front, steam heat, bathrooms, mantels, etc.

Architect Frederick W. Perkins: For A. N. Fuller, a three-story residence, to cost \$30,000; on Ellis avenue, near Forty-ninth street; stone front and sides; hot water heating, stained, plate and beveled glass, etc.; working on plans. For J. W. D. Kelley, a three-story residence, Findlay, Ohio; pressed brick front, with Bedford stone; furnace, mantels, etc.; finishing plans. For P. B. Palmer, a three-story frame residence, on Ellis avenue near Fifth street; furnace, mantels, stained, plate and beveled glass, etc.; making plans.

Architect R. G. Pentecost: For A. F. Shuman, a six-story flat building; steam heat, two passenger elevators, marble halls and staircases; cost \$80,000; finishing plans. For Mrs. Watkins, a three-story residence; Anderson rock faced brick and brownstone; steam heat, mantels, stained glass, etc.; making plans. For A. Mendel, two residences, to cost \$30,000; brownstone fronts; hot water heating, marble and onyx mantels, beveled and plate glass, etc.; letting contracts.

Architect William W. Clay: For D. and J. Hardin, a four-story store and flat building; Tiffany brown brick, with Connecticut brownstone; steam heat, bathrooms, mantels, etc.; making plans.

Architect J. F. Warner: For Kauffman Bros., a three-story store and flat building; St. Louis pressed brick and Bedford stone; bathrooms, closets, beveled and plate glass. For Mr. Sargent, a three-story store and flat building; St. Louis pressed brick and stone; bathrooms, closets, mantels, stained glass.

Architect Robert Rae: For J. A. Coleman, a two-story residence, to cost \$20,000; brownstone front and sides; hot water heating, mantels, marble floors and vestibules, stained, plate and beveled glass; finishing plans. For Cairnduff & Co., at Edgewater, a two-story store and flat building; bathrooms, closets, stained glass, mantels, etc.; taking figures. For C. E. Eymann, at Warsaw, Illinois, two frame dwellings; cost \$10,000; furnaces, stained glass, mantels, bathrooms, closets; making plans.

Architect Oliver W. Marble: Making plans for four dwellings, to cost \$25,000; Bedford stone fronts, furnaces, mantels, stained glass, etc. For Edward Mendel, two residences, to cost \$30,000; Bedford stone fronts; Grand boulevard, between Forty-first and Bowen avenue. For William H. Pruyn, two three-story residences, to cost \$23,000; Bedford stone fronts, furnaces, mantels; stained, plate and beveled glass, etc.

Architects Edbrooke & Burnham: For the Highland Scott Meat Canning Company of England, capital \$5,000,000, a large meat-canning establishment at Buenos Aires, Argentine Republic, South America; the main building, four-story, size 300 by 600 feet; boiler, engine, tank and ice machine building, three stories, size 96 by 200 feet; the whole establishment will cover eight acres of ground, and cost upward of \$1,000,000. For the Calumet Meat Canning Company, at Hammond, a four-story meat canning factory, 80 by 200 feet, to cost \$50,000.

Architect F. B. Shelton: Working on plans for a five-story warehouse, 40 by 150 feet, to cost \$30,000; to be erected on South Canal street; Anderson pressed brick and Bedford stone front; steam heat, elevator, steam power, etc.

Architect W. A. Arnold: Making plans for four frame residences, to be erected at Evanston; stone foundation, furnaces, mantels, bathrooms, stained glass, etc.; cost \$19,000.

Architect William Thomas: For C. Gillespie, a two-story livery stable; cost \$10,000; St. Louis pressed brick and Bedford stone front. Also taking figures for a two-story store and flat building, size 25 by 65, St. Louis pressed brick and Bedford stone front, bathrooms, closets, mantels, etc.

Architect L. G. Hallberg: For Mary Keohane, a three-story flat building, 25 by 75; cost \$12,000; Indiana pressed brick and brownstone, letting contracts. Taking bids for the Central Union Block, to be erected on the northwest corner of Madison and Market streets, six stories, size 200 by 180 feet; cost about \$250,000; steam heat, electric light, six elevators, etc. Letting contracts for seven-story store building, 80 by 160 feet; cost \$150,000; to be erected at 215 to 221 Wabash avenue, steam heat, three elevators, electric light, etc.; now tearing down old buildings.

Architect S. S. Beman: Made plans for a Catholic church to be erected at Pullman, Anderson pressed brick and stone, steam heat, stained glass, pews, etc.; cost \$40,000. For Mr. Niblock, Kenwood, a three-story residence; cost \$15,000; frame, stone basement, steam heat.

Architect W. G. Barfield: For W. D. Hall, a two-story residence, pressed brick and Bedford stone, furnace, mantels, etc. For O. B. Marsh, a two-story frame dwelling, furnace, mantels, stained glass.

Architects Treat & Foltz: For E. J. Lehman, a three-story and basement flat building, 96 by 54 feet; cost \$25,000; pressed brick and Bedford stone; just finished plans. For the Western Electric Company at 257 South Clinton street, two-story addition to factory; cost \$45,000. Just completed plans for a three-story flat building to cost \$15,000, in the rear of 2320 State street, for E. J. Lehman. Breaking ground for residence for W. C. Goudy, on Astor street near Goethe, granite front and side, hot water heating, etc.; cost \$50,000. For H. R. Durkee, a four-story store and flat building, 50 by 82 feet; cost \$22,000; Tiffany pressed brick and Bedford stone.

Architect C. J. Ohman: For A. Park, ten two-story flats, 210 by 40 feet; cost \$35,000; pressed brick and stone.

Architect M. L. Beers: For D. A. Peirce, a three-story and flat building; cost \$12,000; Milwaukee pressed brick, Bedford stone and terra-cotta.

Architect George Grussing: For S. W. Roth, six two-story flat buildings; cost \$21,000; Tiffany pressed brick and Bedford stone. Also making plans for eight three-story stores and flats to cost \$45,000; Kedzie avenue and Carroll street, Tiffany pressed brick and Bedford stone fronts, bathrooms, closets, stained glass, speaking tubes, etc.

Architect Oscar Cobb: For Jacob Litt, at St. Paul, Minn., a four-story building, to contain theater, stores, offices, etc.; to cost \$80,000; steam heat, electric light, 2,000 opera chairs, stained glass, iron beams and columns, etc. Making plans.

Architect Swen Linderoth: For C. W. Kelton, Woodburn avenue, a frame residence; furnace, mantels, stained glass, etc.; cost \$5,000. Also making plans for Swedish Baptist church, to be erected at Meriden, Conn.; furnace, stained glass, bell, organ, etc. A parsonage will also be built next to above, for which plans have not yet been made.

Architect W. J. Van Keuren: For H. W. Kalkenbach, at Oak Park, a two-story flat building; cost \$10,000; Indiana pressed brick front and Bedford stone; making plans.

Architect M. E. Bell: For Lincoln Park, a handsome two-story basement and attic stable; rock-faced Bedford stone, steam heat, etc.; cost \$25,000; working on plans.

Architect F. L. Fry: For W. H. Thomas & Sons, eighteen two-story cottages, to cost \$30,000; Mayenberg pressed brick and stone fronts; finishing plans.

Architect C. H. Frost: For the Illinois Steel Company, a three-story laboratory; cost \$25,000; Anderson brown brick and terra-cotta. A three-story office building, to cost \$30,000; Anderson brown brick, terra-cotta and stone, steam heat, etc.; making plans. For Gilbert B. Shaw, a three-story residence; stone front, hot-water heating, electric light, etc.; cost \$25,000; finishing plans.

Architect W. M. Wolters: For A. Cummings, a four-story store and flat building; \$20,000; pressed brick and Portage stone.

Architect Thomas Wing: For N. K. Fairbank, a four-story store 78 by 173 feet; cost \$40,000; Tiffany pressed brick and Bedford stone; steam heat, two elevators, etc.

Architects Donnellon & Thomas: For M. C. McDonald, a four-story flat building, 30 by 80 feet; cost \$15,000; Polk street near Leavitt; St. Louis pressed brick and Bedford stone; bathrooms, closets, speaking tubes, etc.; making plans. For Mr. O'Donnell, corner of Van Buren street and Third avenue, a three-story store and flat building, 91 by 50 feet; cost about \$15,000; St. Louis pressed brick and stone; working on plans.

Architects Beman & Plamontier: For Hyde Park Club, a three-story building, 70 by 86 feet; cost \$25,000; brown brick and light sandstone; steam heat, mantels, billiard tables, bowling alley, kitchen, etc. For S. B. Howes, two three-story residences, stone fronts, furnaces, mantels, hardwood finish, etc.; \$12,000 each; making plans.

Architect Julius Speyer: Making plans for a Catholic church, to cost about \$200,000, to be built on the corner of Albany avenue and Jackson street; will have a central dome 260 feet high; steam heat, stained glass, etc. For Joseph Desjardin, six two-story houses; cost \$20,000; bathrooms, closets, mantels, etc.

For M. W. Kerwin, a three-story and basement store and flat building; \$25,000; bathrooms, closets, mantels, stained glass; work to be commenced March 1.

#### Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

According to the calendar this is one of the winter months, but no one would think it, for never for years has there been such an open winter. Brickmasons and plasterers have plied their vocations with profit to themselves and satisfaction to their customers. Everything argues well for a busy season this year, the improvements to be of a substantial nature. Beside dwellings, there will be several fine business blocks erected, which will add greatly to our city's fast improving architecture.

What our city needs to do more than anything is to properly appreciate her citizens, and instead, when a breaking away from old methods and styles is attempted, of decrying the effort, and prophesying failure, to get behind and help push. There is nothing so stimulating to enterprise as encouragement.

There is a little uneasiness among contractors concerning the eight-hour movement, but don't let us cross the bridge until we come to it.

If mechanics can afford to lose twelve hours pay each week, for contractors cannot afford to pay for idleness, then their cry of "poverty" dies away like an echo, and becomes as the idle wind. Capital is the laboring man's best friend.

Although indications are good, yet the gleaming of news is a task.

Architects Samuel Hannaford & Sons have prepared plans for a large stone church for the Methodist Episcopal congregation at Middletown, Ohio; hardwood finish, slate roof, pews, plumbing, gas fixtures, etc. Also a large brick water tower for the Cincinnati Water Works.

Architect Wm. Stanton Robinson has drawn plans for Thomas Lee, Esq., Louisville, Ky., for a row of brick houses at the above named place; materials, brick, grates, iron mantels, terra-cotta, gas fixtures, plumbing, etc. Also a dwelling to be of brick, stone and frame, with furnaces, tile roof, stained glass, grates, wood mantels, plumbing, etc.; cost \$10,000.

Architect J. W. McLaughlin is preparing plans for a large building for Joseph T. Carew, to be erected on the southwest corner of Fifth and Vine streets.

Architect H. E. Siter reports the following: For William S. Groesbeck, Esq., Fifth and Walnut, a large factory for shoe manufacture, 50 by 130, six stories high, of brick; cost \$35,000.

Architects Crapsey & Brown have drawn plans for a machine shop for the Egan Company, Second near Smith; W. H. Stewart's Sons have the contract, and the cost will be about \$25,000.

Architect William Martin Aiken, Fifth and Walnut, can furnish particulars of a large freight depot for the C. & O. R. R. at Cincinnati.

Architect Gustave W. Drach has returned from Europe after a three months' tour. He had a most enjoyable time and beheld many beautiful sights, but will not write a book. Welcome home.

Architect John H. Boll has drawn plans for a beautiful home for Capt. T. B. Collier; materials to be brick and stone trimmings, slate roof, wood mantels, furnaces, plumbing, electric bells, dumb waiters, stained glass, etc.; cost \$10,000.

Architect W. W. Franklin has prepared plans for a house for Walter Taylor, Esq.; materials, frame, shingle roof, pine finish, plumbing, stained glass, furnaces, inside blinds, etc.; cost \$5,000.

Architect S. W. Rogers has prepared plans for a residence for J. W. Haley, Esq.; materials, frame and shingle, slate roof, plumbing, furnaces, stained glass, cement floors, etc.; cost \$4,500. He is also remodeling, etc., Reed's Hotel, 174 West Fourteenth street, city.

**Detroit, Mich.**—There has been good steady building going on right through the winter to date, and spring prospects are excellent.

Architects Mason & Rice: For William B. Moore, a three-story dwelling, 44 by 77 feet; brick, stone trimmings, slate roof; cost \$15,000. For Mr. Stevens, a one-story addition to dwelling, 23 by 24 feet; brick, stone trimmings, slate roof; cost \$13,000.

Architect Ed C. Van Leyen: For James Holihan, a three-story store and dwelling, 25 by 85 feet; stone, pressed brick front, gravel roof; cost \$9,000.

Architects' names not reported: For City Board of Education, a two-story school building, 80 by 75 feet; brick, with stone trimmings, slate roof; cost \$20,000. Also a two-story addition to school building, 26 by 70 feet; brick, with stone trimmings, slate roof; cost \$10,000. For J. J. Gordon, twenty-five one-story frame dwellings, 25 by 40 feet; shingle roof; cost \$20,000. For E. J. Beaton, a two-story double dwelling, 38 by 56 feet; brick, stone trimmings, slate roof; cost \$5,000. For the Methodist Church Society, a two-story church, 47 by 90 feet; brick, stone trimmings, slate roof; cost \$18,000. For C. L. Cole, two three-story stores and dwellings, 40 by 54 feet; brick, stone trimmings, gravel roof; cost \$5,000. Also two three-story stores, 40 by 60 feet; brick, stone trimmings, gravel roof; cost \$5,000. They will begin work March 1 on J. L. Hudson's new nine-story store, cost to be about \$250,000. The entire building will be required for Mr. Hudson's business.

**Dubuque, Iowa.**—The coming building season promises to be a very successful one. Among the contemplated buildings are a chamber of commerce, a Masonic temple and an armory.

**Fairburn, Ga.**—Architects Bruce & Morgan: City school; two stories; 60 by 80 feet; cost \$5,000.

**Findlay, Ohio.**—Architect George Horn: For Frank Karst, a four-story business building, 60 by 180 feet; brick; cost \$15,000.

Architect S. Baker has plans for a five-story business building, 28 by 120 feet; brick and stone front; cost \$10,000.

**Glendale, S. C.**—Architects Bruce & Morgan: For A. H. Twitchell, a two-story residence, 100 by 40 feet; cost \$15,000.

**Kansas City, Mo.**—Architect John Schmidt: For Dr. Thorn's office building, addition of 64 by 108 feet; brick and stone; cost \$25,000.

Architect A. Van Brunt: For W. T. Wait, two-story residence; brick and stone, 25 by 44 feet; cost \$5,000.

Architect F. W. J. Hart: For F. Glenk, two-story residence; brick and stone; cost \$7,000. Also for Benj. Kinderman, a four-story store and office building, 46 by 70 feet; brick and stone; cost \$30,000.

Architects Van Brunt & Howe: For G. F. Ballingall, three-story block of stores and dwellings, 110 by 61 feet; brick, stone and terra-cotta; cost \$15,000.

**Knoxville, Tenn.**—Architects Baumann Bros.: For J. N. Betterton & Co., a five-story brick business building, 40 by 90 feet; cost \$10,000.

**Little Rock, Ark.**—Architects Orlopp & Kusener: Mr. Geo. Sander will add two more stories to his building on Second and Center streets and convert it into a hotel, 150 by 150 feet; estimated cost \$25,000.

Architect Fred J. H. Rickon is preparing plans for Mr. H. P. Edmanson for frame residence; cost \$3,000.

The city council passed an ordinance looking to the remodeling of the city hall building, to cost about \$50,000.

**Milwaukee, Mo.**—Architects C. H. Leopold & Co.: For Mr. R. A. Peschman, two-story frame store and dwelling, 38 by 85 feet; cost \$6,000.

**Minneapolis, Minn.**—The following will be built in the spring: George H. Holt & Co., two one and one-half-story frame dwellings; cost \$12,000. Also four three-story frame dwellings; cost \$34,000. C. P. Stedman, a two-story tenement row; cost \$16,000. W. W. Whitman, a two-story brick tenement house; cost \$8,000. W. M. Lucas, four residences; cost \$12,000. N. A. Matauder, three two-story dwellings; cost \$6,000. J. Brandt, a three-story dwelling and barn; cost \$8,000.

**Pittsburgh, Pa.**—Architect W. S. Fraser: For John A. Renshaw, three-story dwelling, brick and frame, 34 by 34 feet; cost \$10,000.

Architects Bickel & Brennen have prepared plans for W. J. A. Kennedy, for four dwellings, brick and stone trimmings, hardwood finish and modern appointments. The Allegheny Valley Railroad Company has purchased property on Twelfth and Pike streets, and intend erecting a new freight depot; building to cost about \$150,000.

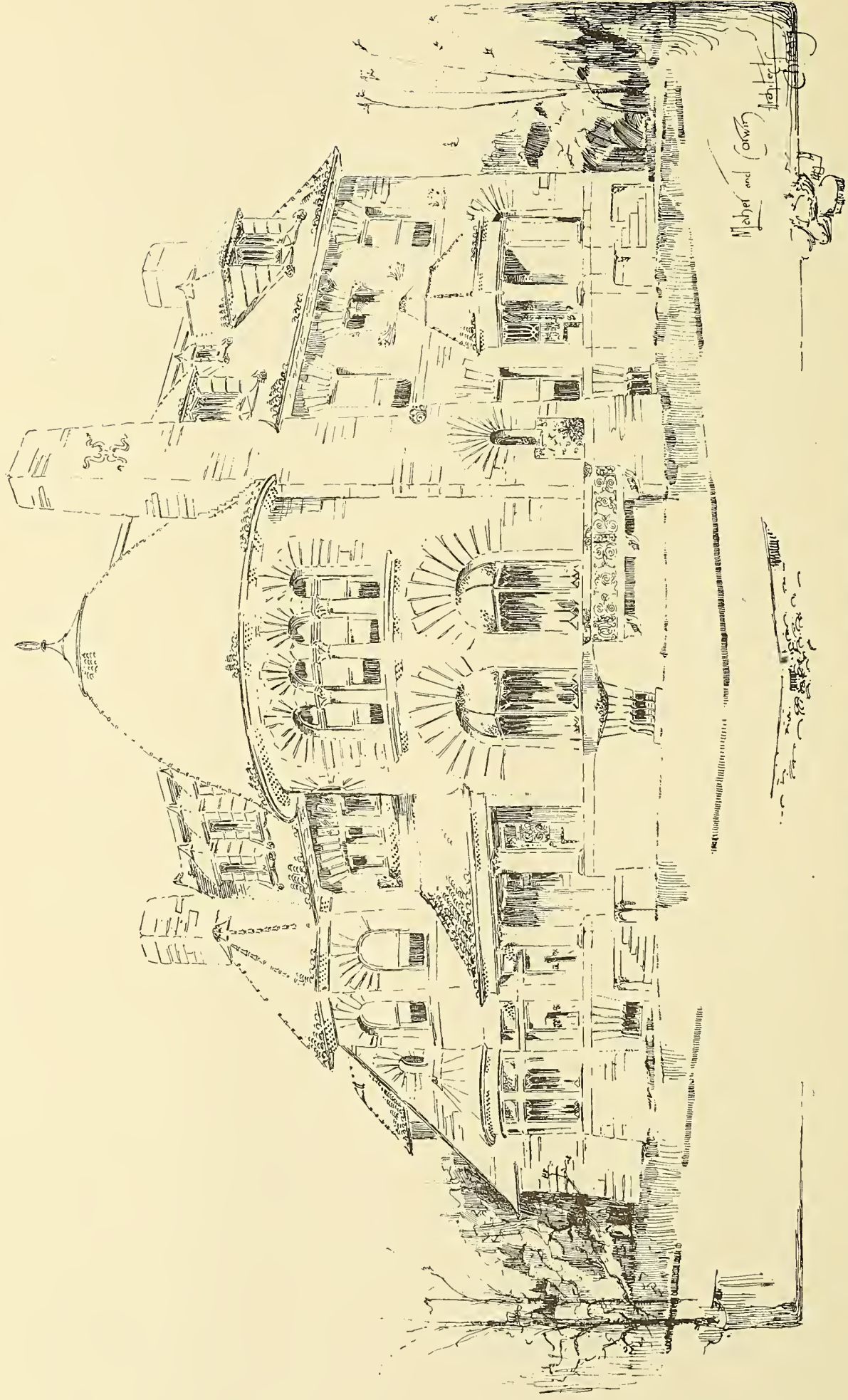
**St. Joseph, Mo.**—Architects Perkins & Adams, of Topeka: For the St. Joseph Terminal Railroad Company, a freight depot, 40 by 500 feet, pressed brick and terra-cotta; cost \$50,000.

**St. Louis, Mo.**—Architect I. S. Taylor: For Mrs. Mulhall, two-story brick dwelling, 40 by 60 feet; cost \$15,000. Also has prepared plans for the Globe-Democrat Building.









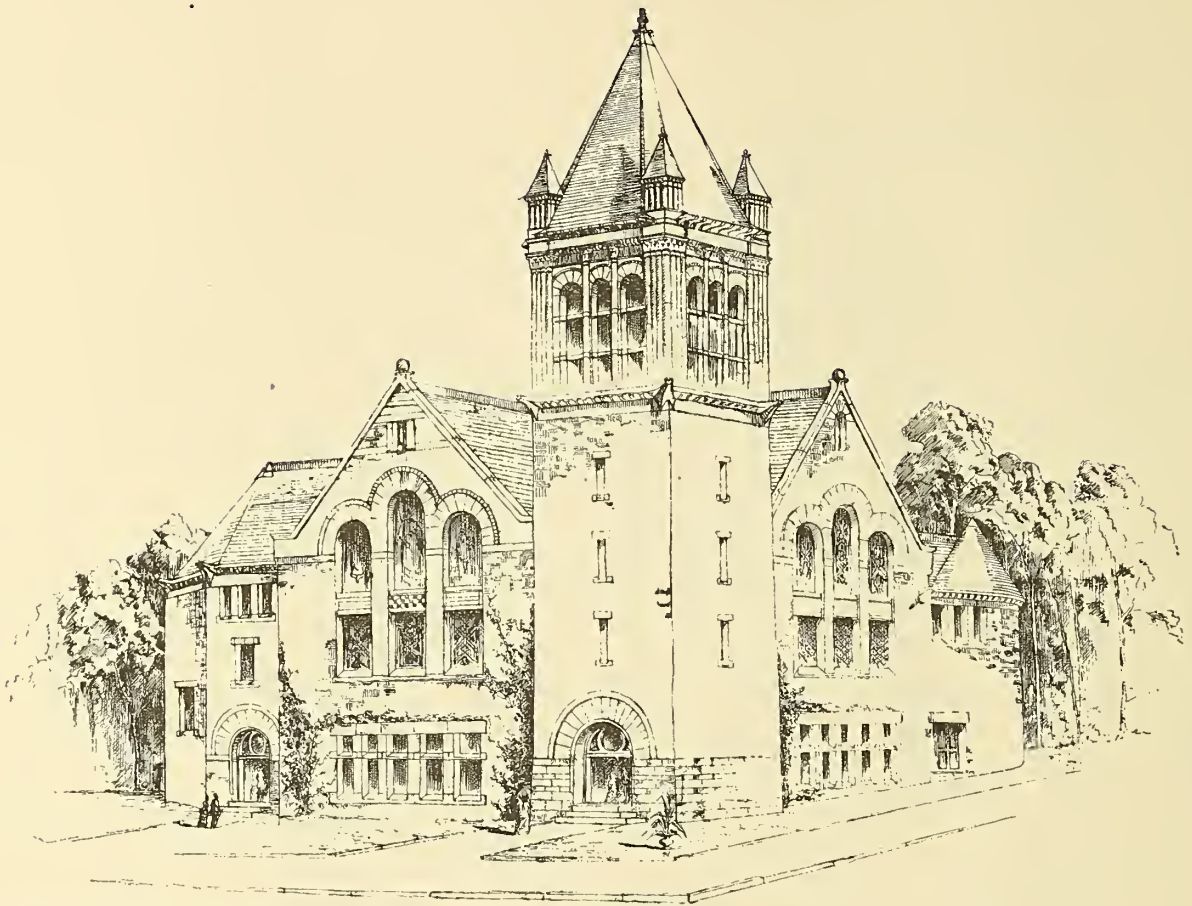
DOUBLE HOUSE FOR A. F. SHUMAN, CHICAGO.

MAHER & CORWIN, ARCHITECTS.



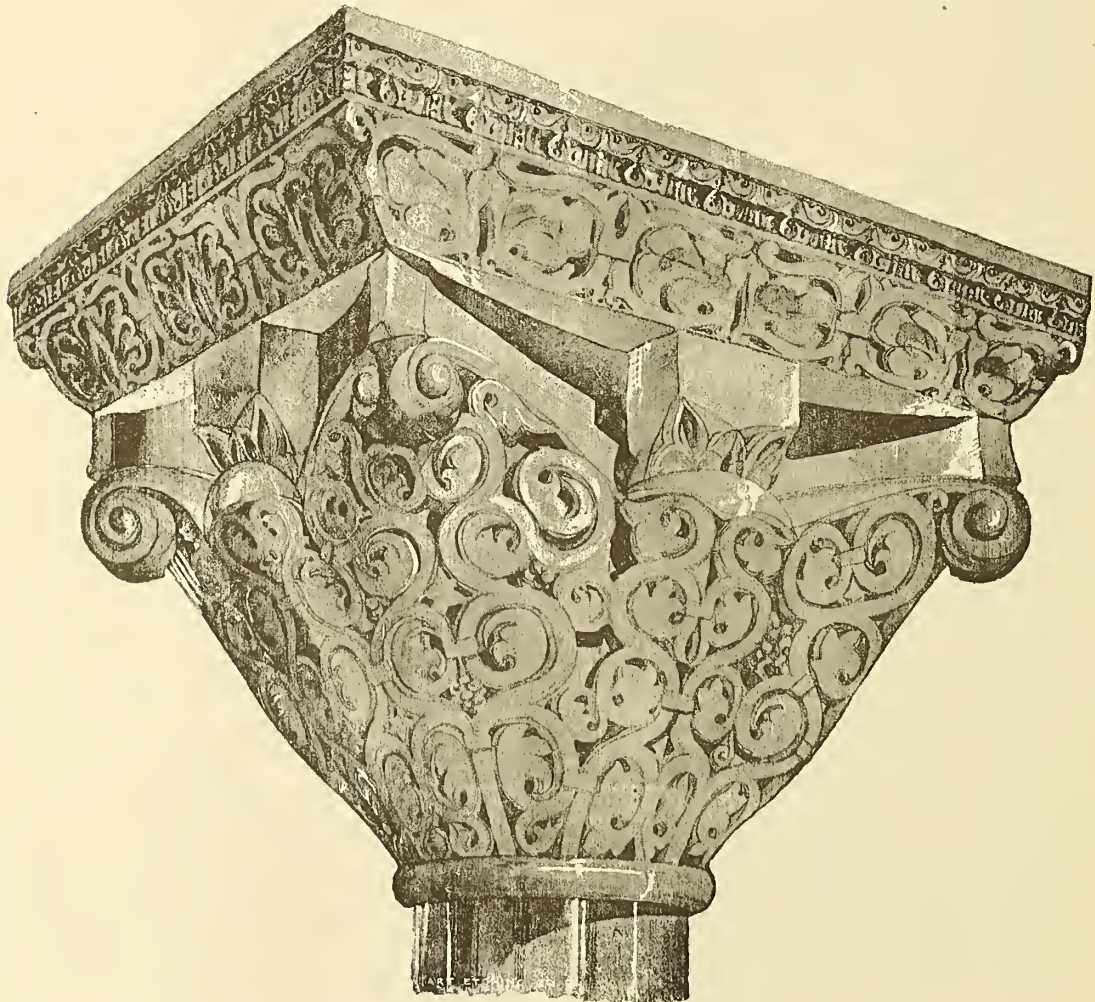






SKETCH OF NORTH DENVER M.E. CHURCH  
KIDDER and HUMPHREYS ARCHTS.

*John J. Murphy Del.*



FIRST PRIZE, GOLD MEDAL, DESIGN BY ALBERT R. ROSS, NEW YORK.

Architectural Rendering of an Original Detail; Competition for Draftsmen under 21 years of age, Cincinnati Architectural Club in Connection with the Recent National Exhibition of Drawings.

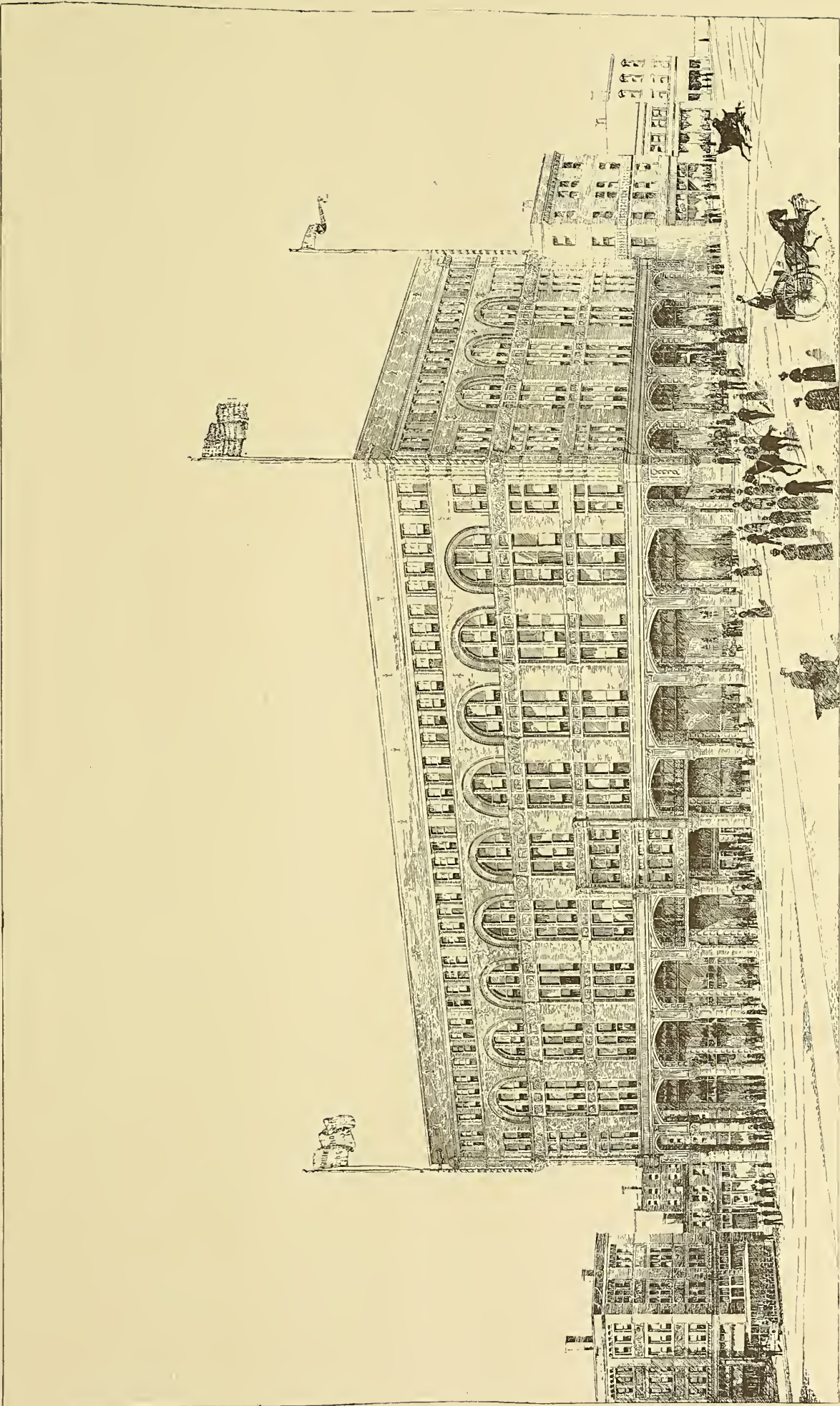












BUSINESS BUILDING FOR MESSRS. BULLENE, MOORE, EMERY & CO., KANSAS CITY, MO.

VAN BRUNT & HOWE, ARCHITECTS, BOSTON AND KANSAS CITY.

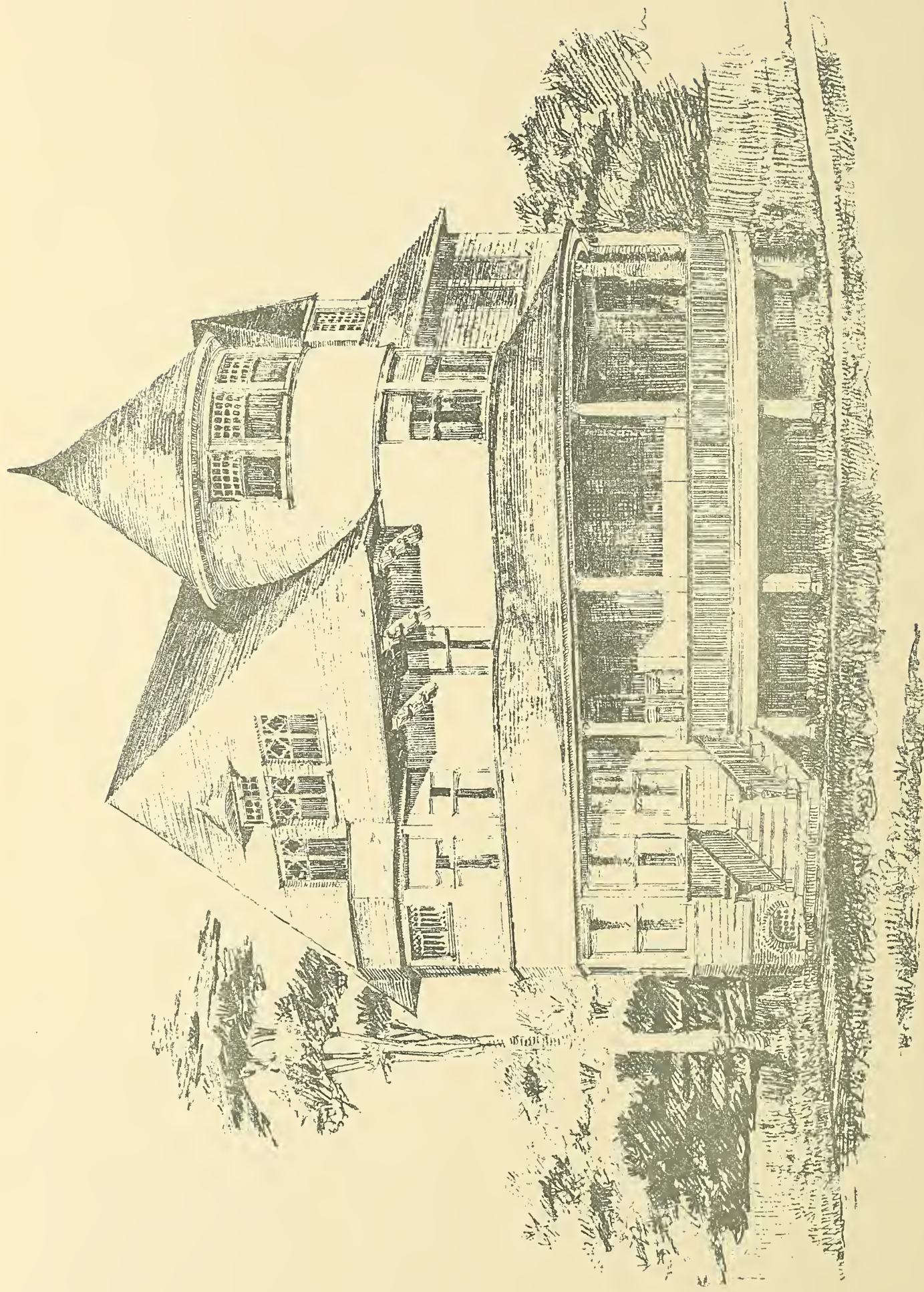












RESIDENCE OF MISS M. WILSON, PARK RIDGE, ILL.

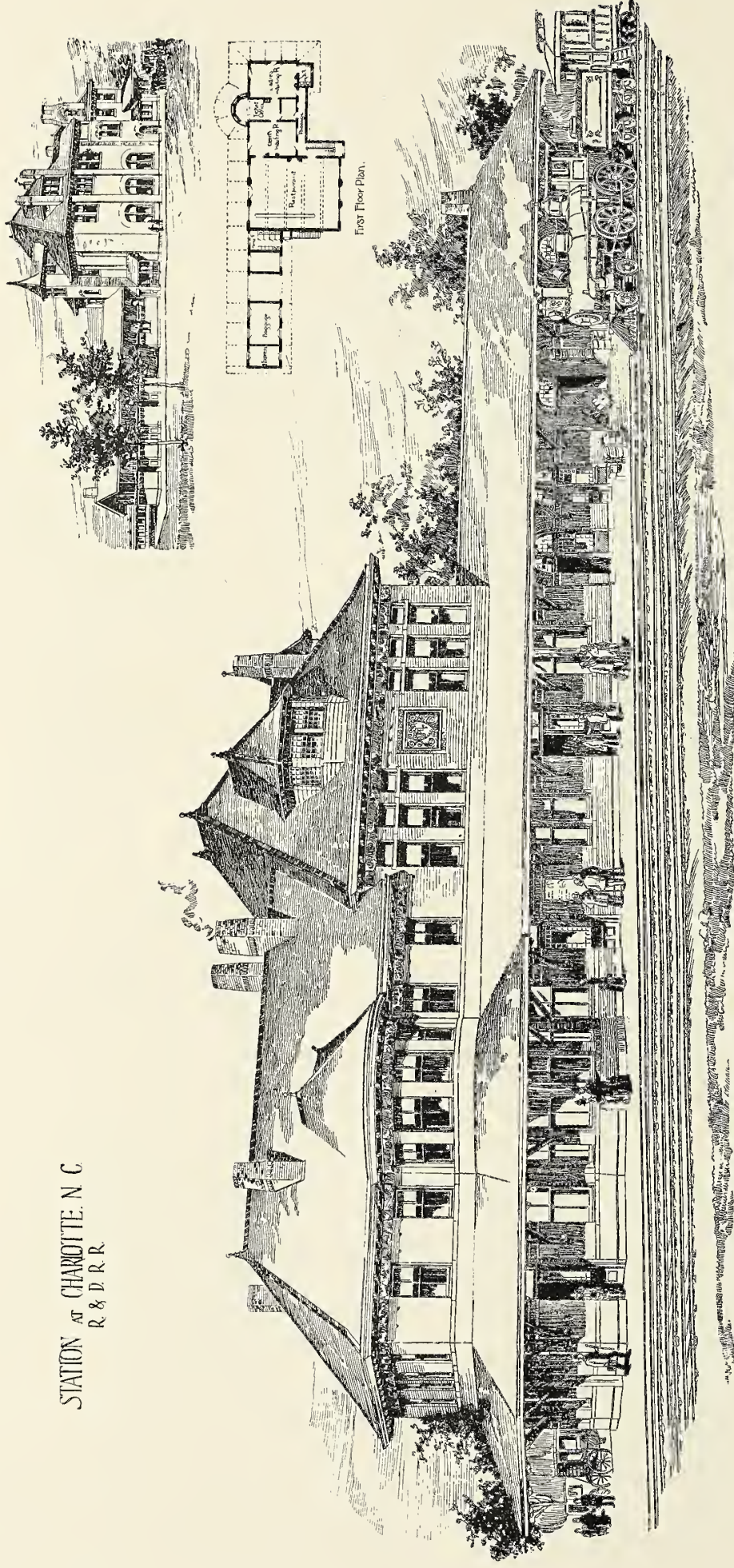
TREAT & FOLTZ, ARCHITECTS, CHICAGO.







STATION AT CHARLOTTE, N. C.  
R. & D. R. R.



W. PONDENXTER & CO ARCHTS WASHINGTON D. C.

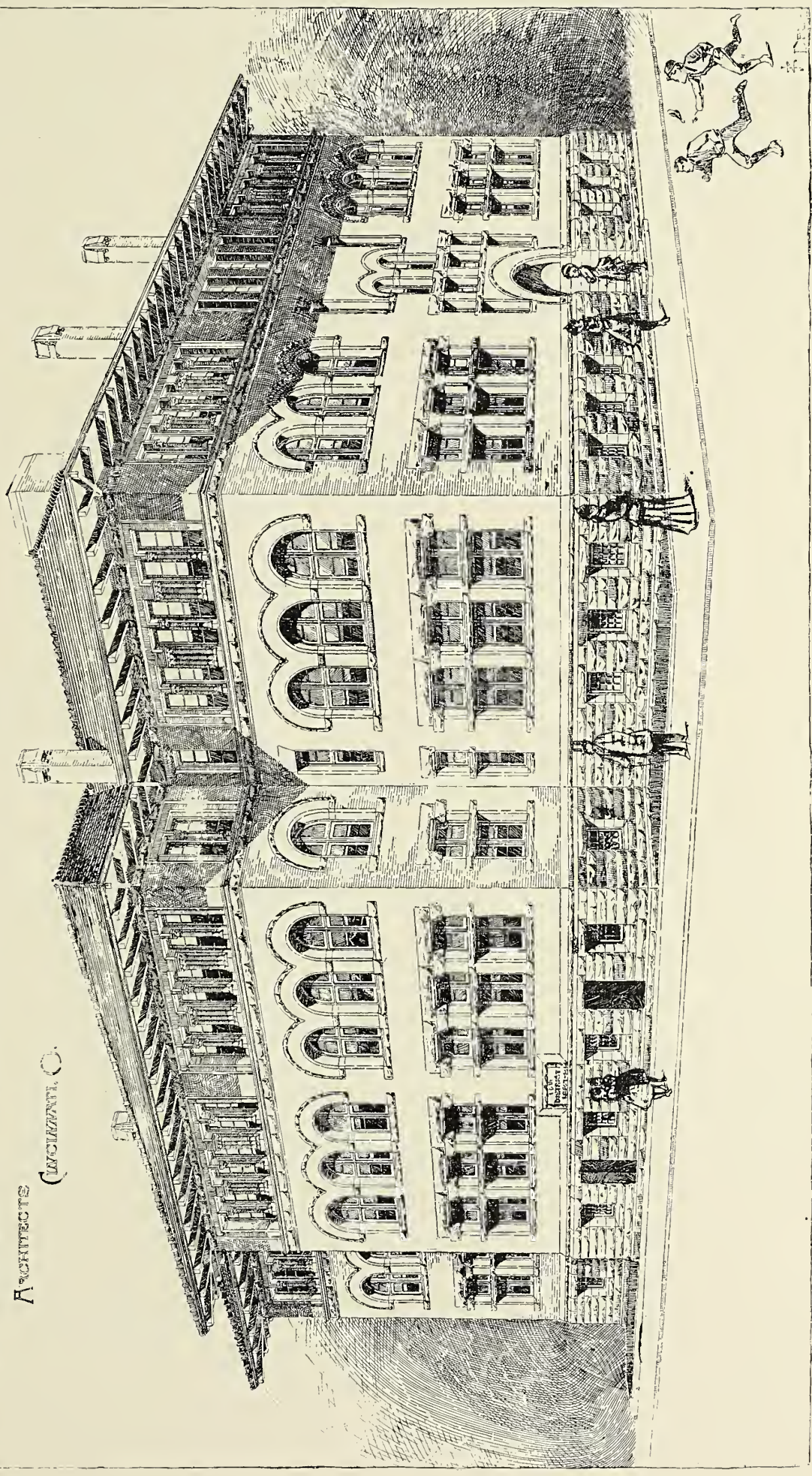


# 10TH DISTRICT SCHOOL.

Designed by FLETCHER & THORNDIKE.

ARCHITECTS

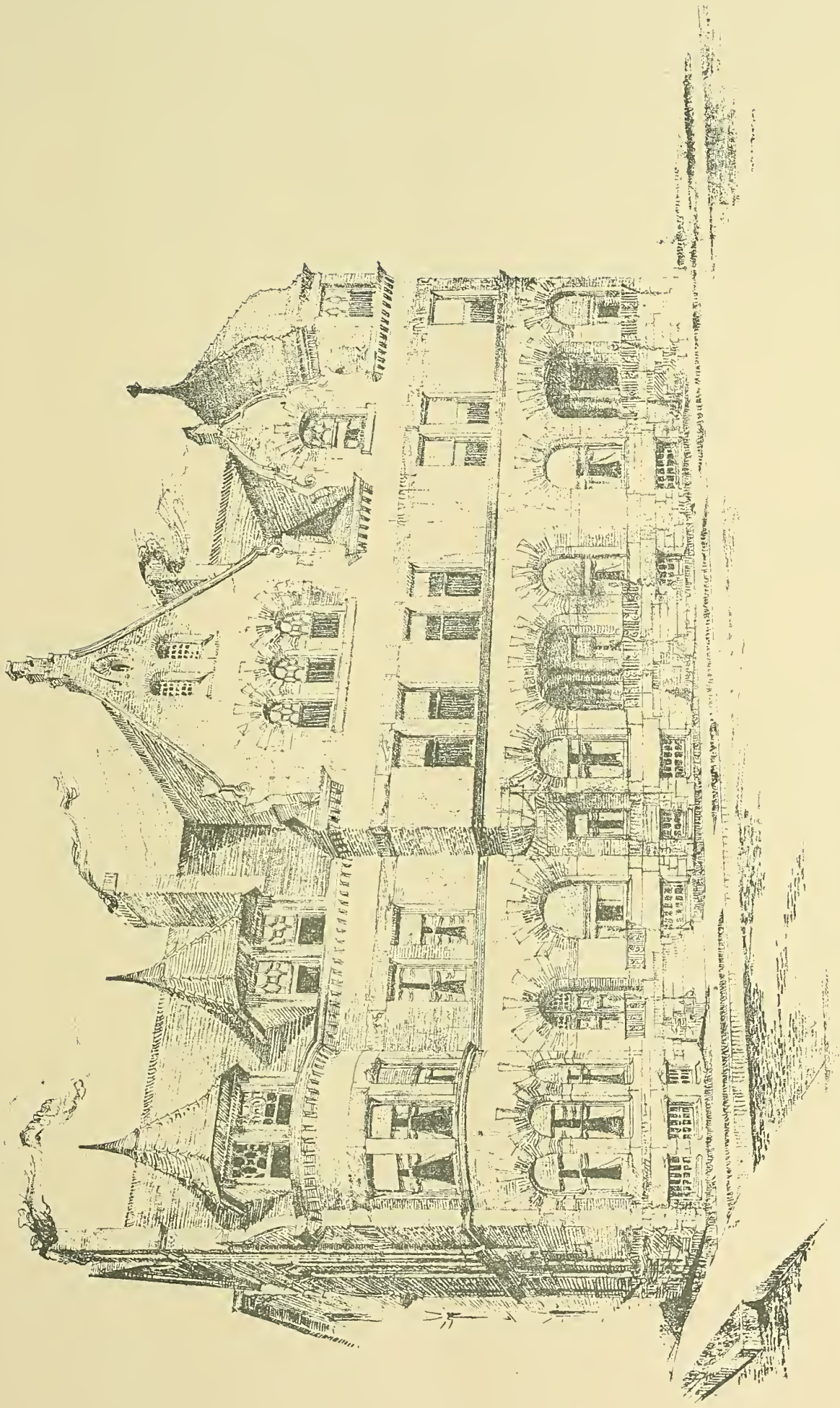
CINCINNATI, O.











HOUSES FOR THE HUBBARD ESTATE, CORNER ELM STREET AND DEARBORN AVENUE, CHICAGO.  
TREAT & FOLTZ, ARCHITECTS.









Entered at the Postoffice at Chicago as second-class matter.

A MONTHLY JOURNAL (WITH AN INTERMEDIATE NEWS NUMBER AND A PHOTO-GRAVURE EDITION) DEVOTED TO WESTERN INTERESTS.

VOL. XIV. No. 9.

CHICAGO, JANUARY, 1890.

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## INTERMEDIATE NEWS NUMBER,

DEVOTED TO

ASSOCIATION AND BUILDING NEWS.

PUBLISHED BY

THE INLAND PUBLISHING COMPANY,

CHICAGO, ILL.

Consolidation of the Illinois State Association and  
the Chicago Chapter American Institute  
of Architects.

UPON the date of the regular monthly meeting of the Illinois State Association of Architects, January 20, that body met with the members of the Chicago Chapter of the American Institute, and proceeded to consolidate the two associations under the rules of the new American Institute of Architects. The meeting, preceded by a dinner, was held in the banquet hall of French's restaurant, on State street.

There were present Architects J. W. Root, N. S. Patton, George Beaumont, John M. Van Osdel, Jr., C. O. Hansen, S. M. Randolph, L. D. Cleveland, J. R. Willett, S. V. Shipman, S. A. Treat, D. Adler, John Addison, L. G. Hallberg, H. W. Hill, A. F. Pashley, W. A. Otis, J. R. Silsbee, W. L. B. Jenney, L. G. Quackenboss, C. L. Stiles, J. R. Schaub, Alfred Smith, O. J. Pierce.

In the absence of the president, vice-president and chairman of the Board of Directors of the Illinois State Association, Architect John Addison, president of the Chicago Chapter, occupied the chair at the head of the table, and after the coffee and cigars had been placed before each guest, called upon Architect W. A. Otis, secretary of the chapter, to read the minutes of the previous meeting showing the action of the chapter in regard to consolidation. The chair then called upon Secretary O. J. Pierce for the minutes of the previous meeting of the state association for the same purpose.

On motion of Mr. Hill, Mr. Addison was made permanent chairman, and on motion of Mr. Treat, Mr. Otis secretary of the meeting.

On the chair declaring the minutes approved as read, Mr. Adler stated that it was evidenced by them that both bodies desired consolidation. There were various ways in which this might be accomplished, but he thought the way to consolidate was to consolidate. The main question was whether the new association should be a local or a state chapter. To bring this matter before the meeting Mr. Adler moved as follows:

*Resolved*, That when the two bodies shall have consolidated, steps shall be taken to reorganize under the name of the Illinois Chapter of the American Institute of Architects.

Mr. Jenney said that he was certainly in favor of the resolution, as there were many advantages in a state organization over a local one.

Mr. Root said in explanation that at the recent meeting of the Executive Committee of the Institute at New York, amendments were proposed to the by-laws which would show the attitude the local chapter would sustain toward the national body. It was deemed essential that every member of the Institute should be a member of a chapter, and that the membership of the Institute should come through the chapters, as this would be a better guarantee of a member's standing; also, that all active members of chapters should be members of the Institute. Provision had been made, however, for an associate membership of chapters, it not being necessary that such be members of the Institute. Again, the Executive Committee declined to say what chapter a member should join, as it might be desirable to belong to a remote chapter, or one or two architects in four or five cities might wish to form a chapter; for these reasons no geographical rules were laid down. Where an objectionable person sought to avoid those who knew him and applied to a distant chapter this would in itself be open to suspicion and lead to a closer investigation. It seemed best in this as in every other secular case, such as in New York, Ohio, Missouri, etc., to first sustain a state chapter and then, as far as possible, local chapters in the several cities.

Mr. Shipman having called attention to the advisability of following the Institute by-laws in the matter, Mr. Adler called for the reading of the circulars issued upon the recent action of the Executive Committee of the Institute, and mailed to each member as a guide to state reorganization. (Printed elsewhere in this issue.) After the

Request for  
Drawings  
for  
Publication.

The illustrations of an architectural journal are largely dependent on the drawings sent it by the architects. We hope, therefore, that architects will utilize the winter lull in their work to make carefully rendered drawings of their best designs, that have not been published, and send us for publication if found available.

The Proper  
Reorganization  
of State  
Associations.

Probably the most important matter before the members of the American Institute of Architects is the reorganization of state and local associations into chapters of the Institute, and also the organization of new chapters in states where none have existed heretofore. There are two ways of doing this work, a right way, that is simple, and a wrong way, that is apt to destroy the organization or make it ineffective. As a general plan, where there are two local associations, one of the former Institute and one of the Western Association, to be united, the shortest way is to meet jointly, adjourn both bodies, form a convention of the whole, appoint a committee to prepare a new constitution and by-laws, adopt these, and elect officers. The circulars issued by the Executive Committee of the American Institute upon the subject, and the constitution and by-laws, will show in what particulars the rules of the Institute must be followed in the framing of the new constitution. This should also be observed in the reconstruction of all associations, but in this case the old constitution can be remodeled by the executive officers and placed before the members for adoption. In case of doubt regarding the proper procedure, the secretary of the Institute should be asked for a ruling on the subject.



reading of the circulars by the chair, Mr. Adler's resolution was put to vote and carried.

Mr. Adler then offered the following resolutions, which were briefly discussed and then adopted:

*Resolved*, That all members in good standing of the Illinois State Association of Architects be and are hereby admitted to membership of the Chicago Chapter of the American Institute of Architects, and that the revision of the by-laws of the chapter relating to the admission of members be, and are for this purpose, suspended, and that a list of members of said Illinois State Association of Architects, to be certified to by the president and secretary thereof, shall determine who are members in good standing of said association within the meaning and purport of this resolution.

*Resolved*, That in such reorganization the constitution and by-laws of said chapter be modified so as to comprise those of the reorganized American Institute of Architects, and that the Executive Committee be and is hereby instructed to take steps to that effect.

*Resolved*, That the officers of the Chicago Chapter of the American Institute of Architects shall be and are hereby directed to take the necessary legal steps for the reorganization of said chapter, under the general incorporation act of the State of Illinois, and that in such reorganization the name shall be the Illinois Chapter of the American Institute of Architects.

A discussion followed regarding the charter of the chapter, in which the fact was developed that the Chicago Chapter, next to that of New York City, was the oldest chapter of the former American Institute.

On motion of Mr. Willett the Chicago Chapter adjourned.

Mr. Treat, taking the chair, called the members of the Illinois State Association to order, and Mr. Adler offered the following resolution:

*Resolved*, That whenever the necessary steps indicated by the resolutions passed, had been taken, that at such time the Executive Committee of the Illinois State Association be directed to turn over to the officers of the Illinois Chapter of the American Institute all property belonging to the Illinois State Association, and that they be directed to vacate the charter of the state association.

The resolution was adopted.

The Illinois State Association adjourned *sine die*.

The members of the Chicago Chapter were then called together, and a resolution by Mr. Shipman, directing that all the property and funds of the Chicago Chapter of the American Institute be transferred to the Illinois Chapter, was carried.

Someone here called for a statement regarding the funds in the treasuries of each association, and Mr. Root protested that the marriage had up to this point been wholly a love affair, and that no question of marriage settlements, dower, etc., had entered into it, and begged that this ideal condition should remain for the present.

On motion, the officers of each association were made a committee to draw up a constitution and by-laws, secure a state charter, and report at the next meeting.

This ended the business of consolidation for this meeting, and the members proceeded to take up the report of the committee appointed at the last meeting of the state association upon securing permanent quarters for the association.

Mr. Treat called for the report, and Mr. Stiles, the chairman, reported regarding a proposal of the Art Institute, which did not seem to be received with much favor because the charge for rent exceeded the amount the association should pay.

Some discussion followed in regard to the quality of the quarters the association should occupy, and Mr. Treat called attention to what the draftsmen had done in the way of quarters.

Mr. Root said what Mr. Treat stated was much to the point. The sketch club was a very vital and progressive organization. He was in favor of a fine being imposed upon members who were absent from meetings.

Mr. Willett parenthetically observed that the chapter tried that in the old days, and it did not work, as the members stayed away altogether.

Mr. Gay objected to the parallel between the "adult" draftsmen and the juniors, as the former were able to do something without any hints from the draftsmen.

Mr. Beaumont explained in detail how successful the Chicago Architectural Sketch Club had been in maintaining elegant quarters, and a motion was passed directing the chair to appoint a committee of three on permanent quarters, to report at next meeting.

Mr. Adler introduced the following resolution:

*Resolved*, That in the newly organized state chapters the annual dues shall not be less than \$15.

The resolution was seconded by Mr. Treat.

Mr. Jenney proposed an amendment, which was not seconded, that the annual dues should not be more than \$15.

Mr. Willett spoke of the experience of the chapter after the great fire, when the dues were \$25.

Mr. Adler said it was interesting to know what happened "before the war," but now we had before us the experience of two organizations. One (the chapter) able to have but one meeting and pay for but one supper per year, and another that, while it had existed but five years, paid dues most of the time of \$25, and which, because of a large surplus in the treasury unused, had been reduced to \$15. It seemed that now times and customs have changed. Associations as well as individuals are judged much by dress and the money they have. If the Association advertised that the architects of Chicago could not pay more than \$15 for improvement and advancement they had better hide their diminished heads. There are times when it is necessary to entertain visiting architects, and the Illinois State Association could always do this handsomely. In connection with legal proceedings, or the work of committees sent to the state capitol, as for other things, money was required, and the State Chapter could not expect to be a body respected and able to accomplish what it was formed to do if afraid to ask architects to pay current expenses and have a surplus for all other purposes. Mr. Adler reviewed the situation among architects before and after the great fire, when the older

architects looked down upon the younger, and the young men looked upon the older as old fogies. Now all this was changed, and each respected the capabilities of the other, and no depression in business would again cause the dissolution of the association and cause the members to forego the enjoyment and benefit derived from the past five years' monthly meetings. In the past of the chapter Major Jenney and Major Willett stood preëminent among the architects of that day, understanding what they should be to each other, and practicing it, and they should not now feel that the high standard of professional intercourse then shared by them could not be practiced now, and if they will look at the history of all the state associations and of the Western Association they will see that there is little likelihood of a repetition of those things that then caused them to lose faith. Returning to the original proposition contained in the resolution, Mr. Adler said that the association could not expect to have the respect of the public unless they had at all times the command of money professional bodies were expected to have for the furtherance of its interests.

Mr. Jenney said he thought all agreed with Mr. Adler that the great benefit is in the pleasant social intercourse.

Mr. Willett said that the early days of the chapter should go into history, as these latter days were going into history. The meetings then were valuable, as these were valuable. He well remembered the meeting of the chapter in the old Drake block, at which Mr. Wight, of whom as a brother architect he had the most kindly remembrance, and who was ever progressive in spirit and ready to give to others the experience he had acquired, and Mr. Boyington, likewise, gave him the first knowledge he acquired of Chicago soil and foundation construction. The Chicago Chapter was always valuable, and the architects of today were reaping the benefit of what it had done.

After some further remarks the question was called on Mr. Adler's resolution, which was carried.

The chair appointed as a committee of three on permanent quarters, Architects S. A. Treat, Clarence L. Stiles and J. W. Root.

The meeting then adjourned, subject to the call of the committee on organization, which consists of the officers of the two old associations.

### Chicago Builders' and Traders' Exchange.

THE seventh annual meeting of the Chicago Builders' and Traders' Exchange was held January 20. The meeting was called to order at 12 o'clock, by President D. V. Purington.

The secretary, James John, made his report which showed the total receipts from all sources during the year to be \$15,247.25, the total expenditures during the year \$12,876.88. The treasurer's report showed the total balance in the treasury \$14,040.06. The actual membership on January 1, 1890, was 596.

During the year four members had died, Messrs. J. B. Sullivan, J. Y. Macomb, M. Cossman and E. P. Wilce.

The regular ticket for officers was then put in nomination, and the meeting adjourned to 8 P.M., the polls being open until 5 P.M., in charge of Alexander G. Murray, Daniel Freeman and E. C. Kimbell, the inspectors of election.

On the meeting being called to order at 8 o'clock, President Purington read the following report for the Board of Directors:

*To the Members of the Builders' and Traders' Exchange:*

GENTLEMEN,—Your Board of Directors desire to submit their sixth annual report for the year ending December 31, 1889.

As will be seen by the reports of the secretary and treasurer, we are stronger numerically and financially than we were one year ago. This is due somewhat to the change in the by-laws of the Exchange, which provided for an increase in the initiation fee to \$300 after the membership reached 600. At the close of 1888 we numbered 574, while at the present time we number 596, a total gain of 22. The query will arise in the minds of many, why the initiation fees have been raised to \$300, while the membership is only 596? The answer is that the Board of Directors elected to membership sufficient to complete the number to 600, but of that number several failed to qualify, and the decision of a majority of the Board was to the effect that such election complied with the spirit and intention of the by-law.

The total gain in assets of the Exchange is \$2,862.84, of which \$1,207.19 is in cash. Four of our most valued members have been removed by death during the year. Two members were expelled during the year. These expulsions were both for the same cause, namely, failure to comply with the decision of an arbitrating committee. Your Board cannot but indulge in the hope that the example set by this Exchange in thus promptly expelling members who failed to keep to their agreement to stand by the result of an arbitration will prove a salutary one.

With the numbers and financial standing of the Exchange your Board of Directors are justly proud. It is, however, questionable if these alone are sufficient to guarantee that efficiency and usefulness that the founders of this Exchange aspired to for it.

It has seemed to many of us that we were simply drifting; that we were gradually, almost imperceptibly, becoming mere machines; that in some way we were falling far short of that ideal exchange we formerly hoped for; this, from the very nature of things, is almost an inevitable result of a strict compliance with Article I of our by-laws, which says, "Any individual of good repute, whose vocation connects him with the trade or industries of building, may become a member of this Exchange upon election by the Board of Directors and payment of the initiation fee."

The present, as well as the past, Board of Directors have been compelled to follow this by-law. The result has been that every man of good moral character, whose vocation connected him ever so remotely with the building interests, was admitted to membership, and the government and management of the association has been shared equally by the hod carrier (if he chose to apply for membership) and the largest contractor.

All will agree that such institutions as ours are much more likely to fail by reason of too rapid growth than by a slow, careful, consistent addition to their numbers.

Our condition is but a repetition of other bodies with similar objects. The Boston and Philadelphia Exchanges have both reorganized on a plan wherein the government of the Exchange is vested in a smaller body, and with most satisfactory results.

So far we have steered clear of difficulties, but the time may come when the numerical strength of our Exchange will be a stumbling block in the way of our progress toward that standard of excellence which should be our goal.

We should not be satisfied to rest on the reputation of being the largest Exchange in the United States. What we want as the representatives of Chicago building interests, what we should have is the best, most useful and most



beneficial Exchange of its kind in the world, and all our energies and efforts should be devoted to this end.

Your Board of Directors tender to the members at large their thanks for the uniform courtesy and kindness extended to them during the year, and extend to their successors their best wishes for the future.

Respectfully submitted,  
D. V. PURINGTON, *President*.

The report of the Board of Directors was well received by the assembled members, and following this, result of the ballot was announced by the secretary, which was the election of the entire regular ticket by a considerable majority, though an opposition ticket, containing some of the leading members of the Exchange, was in the field.

Following is the ticket as elected, the total number of votes cast being 297, the number opposite each name indicating the number of votes cast for the candidate:

President—W. P. Ketcham (199).

Vice-president—J. G. McCarthy (292).

Second vice-president—John Rawle (204).

Treasurer—Joseph Downey (294).

Secretary—James John (195).

Board of Directors (for two years)—C. W. Gindele (212), Walter T. Clark (212), T. C. Diener (184), W. H. Alsip (180), W. H. Iliff (195).

Inspectors of election for 1891—John Rogers (206), W. H. Janu-ary (200), A. Biemolt (207).

The remainder of the evening was devoted to speeches from the officers elect. Mr. Charles H. Gindele spoke long and earnestly in favor of more effective work by the Exchange, and of the value of the National Association, calling attention to the valuable work of the national body in securing the Uniform Contract form. Mr. Gindele gave some examples where the Exchange was deficient in exercising its influence in protecting its members against dishonest or unjust architects, a work wherein other Exchanges of much less strength and influence were effective.

The speech of the evening was that of First Vice-President-elect J. G. McCarthy, who took occasion to suggest that the Exchange could and should adopt the practical work of establishing trade schools in Chicago. Mr. McCarthy, after stating the necessity for such schools and the duty of the Exchange to devote the surplus in the treasury to this purpose, proposed that a committee of five be appointed by the president to work in conjunction with the Board of Directors and take the preliminary steps.

The resolution was unanimously passed and the meeting adjourned, the president announcing that the Committee on Trade Schools and the standing committees of the year would be appointed by the Board of Directors, called together for this purpose on the 24th instant.

At a meeting of the Board of Directors, January 24, the following standing committees for 1890 were appointed:

*Committee on Membership*—A. J. Weckler, chairman, W. H. Iliff, W. H. Alsip, Robert Vierling, T. C. Diener.

*Committee on Arbitration*—Robert Vierling, chairman, C. W. Gindele, T. C. Diener, W. H. Iliff, W. T. Clark.

*Committee on Rooms*—E. V. Johnson, chairman, W. T. Clark, C. B. Kimbell, W. H. Alsip, M. B. Madden.

*Committee on Finance*—M. B. Madden, chairman, E. V. Johnson, C. B. Kimbell, A. J. Weckler, C. W. Gindele.

*Library Committee*—George C. Prussing, A. W. Murray, C. D. Montague.

*Special Committee on Trade Schools*—J. G. McCarthy, chairman, D. V. Purington, George Tapper, William Goldie, F. V. Gindele.

### Sometimes "I," Sometimes "Jay."

WHILE evidences of a poetic instinct are often discernible in the designs published in this journal, and there have been poetic effusions written by architects of celebrity, it is in no way common for "a little thing of me own," bearing evidence of genius, but having been "just dashed off, you know," to come from the pen of an architect. Rare as this may be, it is rarer still for an architect to drop into poetry, like "Mr. Wegg," in answer to an official letter. But this has happened, and the result shows that one architect who stands among the highest in ability to design in his state, has a talent heretofore hidden but none the less versatile, as the following letter from that prince of good fellows, C. I. Williams, of Dayton, will show.

The secretary of the Institute furnished the treasurer with a list of members, requesting him to make corrections to names and addresses. Mr. Treat said that Mr. Williams' initial was "J.," not "I.," whereupon Mr. Root writes Mr. Williams for the correct initial, receiving the following reply:

J. W. Root, Secretary A. I. A.:

At your recent instigation  
For official information,  
Risking mortal indignation,  
Treat doth lie.

Without pause or hesitation  
I make this declaration,  
The correct abbreviation  
Is an "I."

But there are times that I might mention,  
Say after a convention,  
Fearing forcible detention  
By the way;

To avoid the law's intention  
And save trouble without mention,  
Exercising due invention,  
Then its "Jay."

DAYTON, Ohio, January 10, 1890.

Very truly yours,  
CHAS. I. WILLIAMS.

### Executive Committee American Institute of Architects.

THE first meeting of the Executive Committee of the new American Institute of Architects was held in New York, January 6. The matter of the reorganization of state associations was taken up, and as a result the following circular letter has been sent to all members of the Institute, accompanied by one containing the proposed amendments, which take the form of a letter ballot, and should be marked with the assent or dissent of the members, and returned to the secretary. The following is the circular letter:

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICE OF THE SECRETARY,

THE ROOKERY, CHICAGO, January 15, 1890.

DEAR SIR,—At the last meeting of the Executive Committee of the American Institute of Architects, the most important question discussed was the status of chapters of the Institute and the relations now existing and in future to exist between chapters and the Institute.

The following statements represent the unanimous opinion of the committee:

1. That the continuation in active form of existing chapters and the formation of new chapters of the Institute were equally important; for it must always be true that they are the centers of the most active work and greatest influence.

2. That each fellow of the Institute should be a member of a chapter, for the above mentioned reason, leaving him free to join such chapter as would best suit him.

3. That all regular members of chapters should be fellows of the Institute. It was thought that the position of any member of a chapter of the Institute was anomalous when he was not a fellow of the Institute.

4. That chapters should be given the utmost possible latitude, subject to the charter, constitution and by-laws of the Institute, and the restrictions above mentioned. This would allow chapters to elect such associate members as they chose, determine the amounts of their initiation, dues, etc., and generally to manage their own affairs. At the same time, close relationship would exist between the Institute and its chapters, to the great advantage of both, without disturbing such architectural organizations as now exist, which should have affiliation with the Institute.

5. That all fellows of the Institute should be elected from the chapters. This would tend to raise the standing and ability of fellows, and would increase the growth and effective work of the chapters.

To accomplish the above results, amendments to the by-laws are suggested, which are herewith inclosed, and which the committee trust you will adopt.

Please, in voting, write "Yes" or "No" upon the face of the proposed amendments and return at once to the secretary.

JOHN W. ROOT, Secretary A. I. A.

The following are the proposed amendments to the constitution, necessary to carry out the plan of formation of chapters suggested by the Executive Committee:

PROPOSED AMENDMENTS TO BY-LAWS A. I. A.

Begin Article I, Section 2, as follows:

"No person shall be elected a fellow of the Institute unless he shall have been elected an associate member of a chapter."

Rest of section as now.

In Article I, Section 6 to be added as follows:

"Every fellow of the Institute shall be a member of a chapter."

At present Article X reads as follows:

"The Institute shall encourage the formation and continuance of state and local associations, which shall be known within the Institute as chapters. These bodies shall continue and shall be organized under charters from the Institute, which may be granted by the Board of Directors, and which shall clearly define the limits of territory and jurisdiction of the bodies existing or to be formed. The general formation, government, standard of membership and form of election of members in these bodies shall be uniformly prescribed by the Institute, but each body shall have the power to make such further rules and by-laws as it may deem best, provided no action shall be taken which shall conflict with the constitution and by-laws of the Institute."

This to be amended to read:

"The Institute shall encourage the formation and continuance of state and local associations, which shall be known within the Institute as chapters. These bodies shall continue and may be organized by five or more fellows of the Institute under charters from the Institute, which may be granted by the Board of Directors. The general formation, government, standard of membership and form of election of regular members in these bodies shall be the same as in the Institute, but each chapter shall have the power to make such further rules and by-laws and elect such associate members as it may deem best, provided no action shall be taken which shall conflict with the constitution and by-laws of the Institute. Associate members of chapters when elected as fellows of the Institute shall become regular members of chapters."

Vote Yes—No.

By order Executive Committee A. I. A.

JOHN W. ROOT, Secretary.

### American Fine Arts Society.

THE organization of the American Fine Arts Society has been practically completed. At present this organization consists of five of the vigorous art societies of New York, namely, the Society of American Artists, the Architectural League, the Art Students' League, Society of Painters in Pastel, and New York Art Guild. The plan of the organization is to erect a handsome building adapted to the purposes of art exhibitions and art education. Each of the societies in the organization is to have its allotted quarters in the building, and each is to have its proportionate area of space for its individual exhibits. The entire capital subscription of \$50,000 to start the organization has been raised, nearly two hundred artists, sculptors and architects being among the subscribers.

But what is known as the gift fund is counted upon to be the mainstay of the enterprise. This is a fund donated outright by the patrons of New York. Already \$30,000 has been sent in. Among the contributors are Cornelius Vanderbilt, George Vanderbilt, D. O. Mills, John D. Rockefeller and Robert Goellet. Great activity to increase this fund is reported, and there is a possibility that subscriptions amounting to \$200,000 will be announced in the next forty-eight hours. Most of the details of the new organization and the funds at its disposal will be announced at the dinner of the Architectural League at Morelle's in West Twenty-ninth street on Monday evening. "The formation of this powerful union," the committee having the matter in charge announces, "is doubtless the most important step yet taken in the establishment of a true school of American art. It will correspond with the Ecole des Beaux Art in Paris. It brings together no less than three hundred artists and architects of merit and as many more ambitious students. The union is destined to become the art power of the country."



## Association Notes.

## WASHINGTON CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS.

The regular monthly meeting of the Washington Chapter, American Institute of Architects, was held in the chapter room, Friday evening, January 3. Mr. William M. Poindexter, president, in the chair. After the reading of the minutes of the previous meeting by the secretary, Robert Stead, there was an exhibition of lantern slides thrown on a canvas. The subjects were: View of Constantinople; Cloister of St. Bertrand; Church of St. Ambroise, Milan; Exterior of St. Sophia, Constantinople; three interiors of St. Sophia; Cupola of Gallo Tower, Bolivia; Leaning Tower, Pisa; Baptistery Tower and Cathedral, Pisa; Interior Baptistery Tower and Cathedral, Pisa; St. Apol., Nuoro, Ravenna (two views); Entrance Doorway, Church, at Arles; Bourges Cathedral; Church of the Seraglio, Constantinople; Baptistery of Florence; Palace of Justice; Interior of Cathedral, Caen; St. Front, Peregueux, France; Notre Dame, Poitiers, France; Paray le Monial; Church of St. Vitale, Ravenna; St. Mark's; Church of St. Ambroise; Entrance Church at Poitiers; Cathedral at Rouen; Cathedral at Angoulême; Bordeaux Church; St. Croix, and about thirty others. There was also an exhibition of photographs taken by Mr. J. L. Robinson, architect, of Dublin, during the annual excursions of the London Architectural Association in the years 1888 and 1889, showing views of Haddon Hall, Wollaton Hall, Ely Cathedral, Castle Acre Priory, Peterborough Cathedral, Houghton Hall, etc., 264 in all.

## DENVER ARCHITECTURAL SKETCH CLUB.

The second annual meeting of the Denver Architectural Sketch Club was held January 8, the officers being reelected for the year:

President, E. Rice; vice-president, J. Bevan Phillips; treasurer, T. A. Green; secretary, William Cowe.

Board of Directors, R. Willison, J. Janisch, H. Thomas.

Membership Committee, J. Spencer, R. Willison, J. Nichols.

J. Jacobson was elected an honorary member.

After an eight months' organization, with various vicissitudes and changes of officers, the club is now getting down to a firm footing, and the outlook for the ensuing year is very promising. Several competitions have already taken place with a fair return of sketches from various members. The programme for the coming year is being formulated, and promises to be one of special interest to the members from its varied subjects embraced, and will undoubtedly prove a practical benefit to all the members participating in competition. The financial condition of the club, under the excellent management of its treasurer, is very promising, and all the members are enthusiastic over the prospect of a successful year's work. The club is now at work on a competition for a casino for Marblehead Beach, Boston, Massachusetts. This subject being given them by the well-known firm of Andrews, Jacques & Rantoul, of Boston and Denver, who offer a liberal reward for the best design submitted. This subject being new and original, considerable interest is manifested over the competition.

## EDINBURGH ARCHITECTURAL ASSOCIATION.

A lecture on "Some Early Scottish Architects" was given January 9 by Mr. J. Balfour Paul, advocate, to the members of the Edinburgh Architectural Association, in the hall, 42 George street. Mr. H. J. Blanc occupied the chair. Having pointed out that few records as to the designers of our cathedrals and castles were available, the lecturer proceeded to mention some of the most prominent of Scottish architects of early times. He said that Gilbert of Moray, bishop of Caithness, in the first part of the thirteenth century had the credit of designing and building at his own charges the church of Dornoch, the remains of which were still in existence, incorporated with the present parish church. The Castle of Kildrummie, in Aberdeenshire, was also probably erected by him.

In the fifteenth century a family of the name of Merlyoun was largely employed by the king in executing work at Stirling Castle,

Dunbar, and other royal fortresses. Thomas Cochrane, the favorite of James III, who fell a victim to the vengeance of Angus and other nobles, was stated to have been an architect, though his exact position in the king's household had always been doubtful. Another architect of that century, Sir James Hamilton, of Fyvirait, came to a violent end, being executed on a charge of inventing an infernal machine by which the king was to be shot from the tower of Linlithgow. A distinguished man, William Schaw, held the post of king's architect to James VI, and he restored Dunfermline Abbey, and was buried there.

After alluding to some of the nobles who were instrumental in erecting the leading mansions and castles of Scotland, the lecturer gave an account of the family of the Mylne. Belonging to Aberdeen, they gradually came south, and in the seventeenth century John Mylne was located in Edinburgh, and was member of parliament for the city. He was buried in Greyfriar's churchyard. His nephew Robert was the builder of Mylne's Court and several other premises in Edinburgh. A descendant of his built the North Bridge, and another attained eminence in his profession in London. The lecturer subsequently made reference to the claims put forward by Inigo Jones, Wallace, Aytoun and Balcasquale as the designers of Heriot's Hospital.

Mr. Paul also spoke of Sir William Bruce of Kinross, who restored Holyrood in 1671, and in conclusion gave sketches of James Gibbs, Colin Campbell and the elder Adam. A vote of thanks was passed to Mr. J. Balfour Paul for his lecture.

## Mosaics.

WINTER TOURS TO TEXAS AND MEXICO.—The Iron Mountain route has on sale round-trip winter tourist tickets to the resorts of Texas, Mexico and the Southwest at greatly reduced rates. Through Pullman buffet sleeping cars to the Gulf of Mexico and the Rio Grande, and only one change to the City of Mexico and San Francisco. Ticket offices, 102 North Fourth street and Union Depot, St. Louis.

ONLY \$42.50 TO CALIFORNIA.—The Iron Mountain route will run a series of popular one-way excursions in Pullman tourist sleeping cars to California points at the above low rate, January 29, February 12 and 26, March 12 and 26, and April 9. These tourist cars have all the conveniences of first-class sleepers and cost but a trifle extra. Ticket offices, 102 North Fourth street and Union Depot, St. Louis.

A. PHILLIPS & COMPANY'S SEMI-MONTHLY, SELECT, PERSONALLY CONDUCTED EXCURSIONS IN THROUGH CARS TO CALIFORNIA, OREGON AND WASHINGTON.—A. Phillips & Company's excursions leave Chicago every two weeks, for all points on the Pacific coast, in Pullman tourist sleeping cars. No change of cars between Chicago and Pacific coast points. For reservation of berths and full information, apply to A. Phillips & Company, 192 South Clark street, Chicago, Illinois.

The annual course of Tuesday afternoon lectures upon art, at the Art Institute, Chicago, for members and students is in progress, as follows:

Seventh lecture, January 28, 4 P.M., by Mr. Lorado Taft; subject, "Early Greek Sculpture," illustrated by the stereopticon.

Eighth lecture, February 4, 4 P.M., by Prof. Edward S. Morse, of Salem, Massachusetts; subject, "Household Art in Japan."

Ninth lecture, February 11, 4 P.M., by Prof. Edward S. Morse; subject, "Art Hand Works of the Japanese."

Tenth lecture, February 25, 4 P.M., by Rev. Frank W. Gunsalus; subject, "Millet and Burns."

A lecture will also probably be given in February by Miss Amelia B. Edwards, the distinguished author and Egyptologist, and later a lecture by Prof. Halsey C. Ives, director of the St. Louis Museum and School of Art.

An important extra course of evening lectures upon sculpture, classic and modern, illustrated by the stereopticon, will be opened by Mr. Lorado Taft, Thursday evening, February 6, at 8 o'clock, and continued every Thursday evening for ten weeks, until April 10.

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